DOCUMENT RESUME

ED 274 967 CS 209 766

AUTHOR	Squire, James R., Ed.
TITLE	Discussions at the Mid-Decade Seminar on the Teaching of Reading and English (Chicago, Illinois, March 29-31, 1985).
INSTITUTION	National Conference on Research in English.
PUB DATE	[85]
NOTE	135p.
PUB TYPE	Viewpoints (120) -- Collected Works - Conference Proceedings (021)
EDRS PRICE	MF01/PC06 Plus Postage.
DESCRIPTORS	Classroom Communication; Computer Assisted Instruction; *Educational Research; Elementary Secondary Education; English Curriculum; *English Instruction; Instructional Materials; Language Arts; Literature Appreciation; Oral Language; Reader Response; *Reading Comprehension; *Reading Instruction; *Reading Writing Relationship; *Writing Instruction; Writing Processes

ABSTRACT

The discussions of 30 participants in a seminar on the present (mid-1980s) state of research in the English language arts are included in this document. Topics of discussions were as follows: (1) interrelating the processes of reading and writing; (2) texts with different structures and different content: implications for teaching comprehension and composition; (3) oral language: its relation to writing, reading, and response to literature; (4) studies of classroom practice, classroom interaction and instructional materials: what have we learned? what needs to be done? (5) developments in technology: implications for language and literature education; and (6) combining process and product orientations in English and reading. Concluding observations by seminar participants consider the conference in perspective and underline concerns to be remembered. The conclusion offers a new design for research and evaluation. (JK)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED274967

DISCUSSIONS AT THE MID-DECADE SEMINAR ON THE TEACHING OF READING AND ENGLISH

James R. Squire

Editor

prepared for
The National Conference on
Research in English

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

James R. Squire

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CS209766

BEST COPY AVAILABLE

CONTENTS

Introduction ii
James R. Squire

List of Participants in the Seminar iii

Topic I: Interrelating the Processes of Reading and Writing 1-17

Topic II: Texts with Different Structures and Different Content: 18-33
Implications for Teaching Comprehension and Composition

Topic III: Oral Language: Its Relation to Writing, ... 34-48
Reading, and Response to Literature

Topic IV: Studies of Classroom Practice, Classroom Interaction and 49-67
Instructional Materials: What Have We Learned? What Needs to Be Done?

Topic V: Developments in Technology: Implications for 68-86
Language and Literature Education

Topic VI: Combining Process and Product Orientations in 87-107
English and Reading

Topic VII: The Conference in Perspective 108-129

INTRODUCTION

Thirty invited participants - researchers with varied experiences, dispositions, and points of view - met in Chicago on March 29 - 31, 1985, to assess the present state of research in the English Language Arts. The Seminar, called by the National Council of Research in English (NCRE) was also supported by small grants from The Research Foundation of the National Council of Teachers of English (NCTE) and by Ginn and Company.

The twelve invited papers and twelve papers reacting to these ideas are being published by NCTE's ERIC/RCS and NCRE, probably during the winter of 1986-1987. The volume of papers, entitled The Dynamics of Language Learning, edited by James R. Squire, also contains summary papers by two conference commentators and the convenor and editor.

Deliberations at the three-day seminar were recorded, transcribed, and edited for general interest. Frequently of interest largely in relation to the papers that gave them birth, some comments also present varying views of individuals on the current state of research in reading and English and thus, however fragmented they may seem, may be of interest to researchers concerned about the status of research in the middle of the eighties. Incorporated within this report on deliberation are selected reflective comments from two participants on the nature of The Seminar which occurred after the Seminar but are useful in interpreting the key ideas.

SEMINAR PARTICIPANTS

Arthur, N. Applebee, Associate Professor, School of Education, Stanford University

Rita S. Brause, Professor of Education, Fordham University at Lincoln Center

Bertram Bruce, Division Scientist, BBN Laboratories, Cambridge, Massachusetts

Robert C. Calfee, Professor, School of Education, Stanford University

Johanna DeStefano, Professor of Education, Ohio State University

David K. Dickinson, Assistant Professor, Eliot-Pearson Department of Child Study, Tufts University

David Dillon, Associate Professor, Elementary Education, University of Alberta

Dolores Durkin, Professor of Education, University of Illinois at Urbana-Champaign

Robert Dykstra, Professor of Education, University of Minnesota

Edmund J. Farrell, Professor of English Education, University of Texas at Austin

Bryant Fillion, Professor of Education, Fordham University at Lincoln Center

James Flood, Professor of Education, San Diego State University

Lawrence T. Frase, Technical Staff, A. T. and T. Bell Laboratories, Summit, New Jersey

John T. Guthrie, Director, Center of Educational Research and Development, University of Maryland

Robert Gundlach, Director of Writing Program, Northwestern University (Chairman of Arrangements)

Jane Hansen, Associate Professor of Education, University of New Hampshire

Jerome C. Harste, Professor, Language Education, Indiana University

Roselmina Indrisano, Professor of Education, Boston University

Julie M. Jensen, Professor of Curriculum and Instruction, University of Texas at Austin

Peter Johnston, Assistant Professor, Reading Department, State University of New York at Albany

Stephen B. Kucer, Assistant Professor of Education, University of Southern California

Judith A. Langer, Associate Professor, School of Education, Stanford University

Geraldine E. LaRocque, Professor of English and University Liaison for Teacher Education, University of Northern Iowa

Diane Lapp, Professor of Education, San Diego State University (contributing author)

Miles Myers, Administrative Director, National Writing Program, University of California, Berkeley

P. David Pearson, Professor of Education, University of Illinois at Urbana-Champaign

Alan C. Purves, Professor of English Education, University of Illinois at Urbana-Champaign

Diane Lemonnier Schallert, Associate Professor of Education, University of Texas at Austin

M. Trika Smith-Burke, Professor of Educational Psychology, New York University

James R. Squire, Sr. Vice President (ret.), Ginn and Company (Director of the Seminar)

Robert J. Tierney, Center for the Study of Reading, University of Illinois at Urbana-Champaign

Merlin Wittrock, Professor of Education, University of California at Los Angeles

I

DISCUSSION OF TOPIC I:
INTERRELATING THE PROCESSES
OF READING AND WRITING

DISCUSSION

Seminar participants focussed understandably on exploring what is known and isn't known about the relationship of reading and writing, and the lack of attention to literary skills and oral language. But they also raised basic concerns about the impact of research on practice and about who should draw the implications for teaching and when and how these implications should be drawn.

Literacy Skills and Literary Skills

FLOOD: Julie Jensen alluded to the difference between literacy skills and literary skills. Talking about larger curriculum issues of this kind is important if we are to have a major impact. The teaching effectiveness studies which relate to curricular issues have had an impact; thus far, studies of reading comprehension and written composition have not. Perhaps we need to reconsider our purpose. Is it to teach literacy skills or literary skills? Might they be the same thing? Or as Julie suggested, do we get at literacy skills through literary skills?

I am interested to learn that almost nothing is being done about speaking and listening. I agree with Steve Kucer that we should push our examination of similarities between language skills beyond where people want to go, and in so doing look at the relationship between speaking and listening, and, obviously, speaking and reading, writing and listening, and reading and writing.

DESTEFANO: I would like to raise the issue of learning. Who is becoming literate? Who is beginning to read? Who is learning to write? One of the things I would like all of us to do--whether considering basic research, instructional research, whatever--is to come up with recommendations that apply to high risk children, the culturally different, those who end up semi-literate or illiterate. This is the soul of a persistent problem in our educational system and our society.

Julie Jensen's comments on the differences in literacy skills and literary skills could be important in working with high risk children--those in the inner city, in Appalachia, American Indians, the Hmong of Vietnam--wherever they happen to be! Everyone of them has a literary tradition--perhaps orally if not through print. Perhaps we could identify what these children have in terms of literary skills, then help them bridge the gap in acquiring literacy skills. We could develop exciting insights that would contribute to the solution of a pressing world problem.

FILLION: Any process research that ignores, as most cognitive research does, the cultural and linguistic differences of learners will inevitably come up short. One of the major problems in research is that so much of it is conducted by whites and is white-oriented. When we look for people who are active in language research, we find few who are black and this defines the one compelling problem--our failure to consider adequately in attitude and in content whether related to the varying views of black-white or male-female-or the possible oral or literate context. Are the uses of reading and writing and oral language the same in inner city New York as in Greenwich, Connecticut, or Evanston? I suspect not.

Recent studies by William Labov reported in The New York Times, suggest that black English and white English are headed in different directions, all of which makes disturbing the all white composition of this seminar and the white dominance in American research.

In focussing, as DeStefano suggests, on learning and on instructional concerns, we must look at the learning implications and the social implications as well.

On Reading and Writing

KUCER: I think it is useful at this point to push the similarities between reading and writing to the limit. Such views might have a strong effect in the classroom. Generalized discussions that simply claim a relationship are less useful than helping teachers do activities that try to parallel reading and writing and other cognitive skills.

FLOOD: I want so much for these studies to demonstrate that reading and writing are similar, but the evidence is not hard-headed yet. Even in newer studies we don't have it. Sometimes they are found to be related; sometimes, not. And the clearest relationship is found at the word level processing stage.

CALFEE: Let me pose the hypothesis that there is a fundamental curriculum structure that could underly the use of language we refer to in various contexts as being literate and which, I would think, might even include appreciation of literary forms. If this structure were within our grasp, reading and writing and speaking and listening would all come together.

If we really understand this curriculum, we should be able to discuss the commonalities in language in such a way that it is easier for teachers to integrate language areas than to keep them separate. Now, of course, we have hurdles in the way. First, there are no texts on speaking and listening. Hence, they don't come much into our discussions. There are separate texts for reading and language arts, often separate term blocks because you can't have too many books on students' desks. So there are many hurdles. But if we have done good theoretical homework, then the teachers will ultimately overcome the barriers.

LANGER: I think teachers are uncomfortable with reading and writing right now because we are asking that reading and writing be related. Not only do teachers not understand the interrelationships but we, as researchers, are just beginning to look at the relationships ourselves. Asking teachers to relate reading and writing may do a disservice to the profession. It is beneficial to look at reading structures in relation to the structures of writing, or to look at the author's role in terms of readers and writers or to look at both reading and writing as composition activities. But this addresses only a part of the relationship betwen reading and writing. Sometimes we use language a little too loosely.

In addition, there are thinking and reasoning operations that readers and writers use when involved in reading and writing that are quite different. And those differences are a result of the different purposes to which reading and writing are put. In relating reading and writing, we need to look not only at the two domains but at the functions they serve. While general operations across reading and writing are similar, the patterns of reasoning differ based on use.

APPLEBEE: I am not surprised that the correlations between reading and writing are not high. You can talk about reading and writing being interrelated in a number of ways without the expectation that the correlations on any kind of assessment would be high. As Judith Langer and others have pointed out, the kind of behaviors that are similar in reading and writing are those related to general thinking--planning, monitoring, and evaluating--and they seem likely to be the kinds of behaviors which reflect the most similarity.

PEARSON: I would hope that one of the things we do in instructional research is not necessarily to teach reading and writing together but to look systematically for the kind of incidental manifests you get when you do an instructional reading study. For example, one might exercise the systematic activation of prior knowledge upon reading comprehension, then look at the incidental value that the reading activity has on children's planning and writing. Thus I would look for the incidental benefits from one domain to the other in addition to any kind of integrated curriculum.

APPLEBEE: I make the strong conclusion that by and large there aren't any general implications we can draw on with respect to reading and writing from this body of literature. It is wrong to try to take studies of basic processes and claim they tell us <u>how</u> we should be teaching. I think they tell us a lot about <u>what</u> we are teaching, the kinds of skills, the kinds of content that should be defining the languae arts, writing and reading. But I would push this further and say that the instructional implications we have drawn from the studies of the writing process are probably ungrounded.

They have taught us a lot about what we are teaching when we teach writing, but they haven't told us much about how we should be teaching.

I think we need to think hard about what it means to define our subject matter in terms of activities and operations rather than content knowledge; and and we need to study the models of instruction we have in our classrooms, not the models we should have. What I suggest is the study of the models teachers are operating on and diagnosis of what they need to learn. Teach and test, reteach and retest--do these work for all teaching and learning activities? What we need is a theory of teaching to build a bridge from our basic processes.

Moving on from what we now know about basic processes in reading and writing is important work, but I am deeply troubled by attempts to use that work to claim a research base for teaching.

DICKINSON: It is obvious that at some level there are important relationships between reading and writing; however, there are a lot of uncertainties about how they go together. Teachers know this too. There is a lot of common knowledge in the world and teachers have some of it. There is a danger in talking to teachers with overly strong generalizations about reading and writing being very, very closely related, especially since teachers have seen children who can do one and not the other. Morever, teachers have had pedagogical training that emphasizes the differences.

I don't see how the research we are talking about makes clearly enough evident how awareness of knowledge and awareness of language structure play a role in writing and reading and how the differences between the processes might be related.

TIERNEY: I would prefer as an approach to studying reading and writing in which we look at an individual we consider to be a literate person and ask ourselves how he or she uses reading and writing? What does she gain from reading and writing? Then go into the issues. A literate person chooses reading and writing, I think, because of attributes of the processes: they are self administered, one has control over using them, one can take breaks when using them, one can come back again. Reading and writing compliment one another; they don't match each other. They work together in that they both may relate to the same underlying processes. But those processes will take a different character depending upon the specific use as they compliment one another. And that is an issue with respect to reading and writing that few researchers have explored.

Dickinson's concept that we use writing for the purpose of supporting reading skill development is not well understood by teachers. It is an interesting concept that deserves study. This of course relates to the issues of testing and how testing treats reading and writing.

SMITH-BURKE: The problem that I see is that we lack any coherent conceptualization of language that underlies and ties together our thinking. One of the things that has given a framework for my thinking about working with inner city students is a communicative competence model of language.

This model forces one to deal with the fact that language is meaning-driven. This means one must consider content. We don't read reading and we don't write writing. We read and write about history, science, math, etc..

Using this model we must consider language use because we use reading and writing for various purposes. We speak and listen for different purposes as well. This brings up the consideration of form since form follows function and content.

A communicative competence model brings all of these issues together and raises the issue of context in language use--particularly cultural and social contexts.

A model of this kind can help to integrate all of the issues we are talking about here.

Research and Practice

FLOOD: Much of our discussion is aimed at moving teachers closer to instruction and this really can have some payoff in the classroom. But we need to address the role of purpose in instruction. As Jimmy Britton remarked, not to talk of the role of purpose is dangerous.

WITTROCK: I agree with many of the things Jensen said about the relationships of research and practice: but I don't like the alternative we are left with if teachers are to rely only on general practices. The issue is complicated, of course, by the fact that we sometimes see too many implications from research too soon, as in some of the teaching effectiveness research where researchers looked at direct correlations between acts of the teacher and achievement by children. On the other hand, we seem to find mostly distant relationships, if they exist at all, between research on the cognitive processes of reading and writing, such as we are talking about here today, and teaching reading in the classrooms.

Perhaps we can find a way out of this dilemma by trying to understand why teachers find the simplistic "input-output" kind of research more useful; i.e., studying time on task (input), and its relationship to student achievement (output). Isn't it because they have been trained with this kind of thinking so that when we talk about common student thought processes in reading and writing that may have implications for curriculum design, we don't communicate well with them. We are approaching the problem from a different theoretical framework.

My point is that we need to do some research which does not deal directly with teacher classroom behavior or with shaping the curriculum but whose goal is to influence the way teachers think about thinking. Changes in the way teachers think about practice can be produced in this way.

We also need to base curriculum development and instructional practice on theory and understanding of cognitive processes, rather than on a theoretical comparison of instructional methods.

I don't think many teachers wait eagerly to read the next issue of The Journal of Educational Psychology or The American Educational Research Journal. But they understand and apply models of teaching that deal with real problems, that relate to instruction in a way that has meaning to them, that guide practice, and that reflect common sense and their experience as teachers.

In the long run, a change in practice will come from the research we do, not by publishing yet another article, but by unifying the implications of research into a coherent and understandable model which can be communicated to teachers and students.

CALFEE: I was walking across the campus with Bill Politzer a number of years ago, and although a relatively quiet person, he was in a talkative mood. He said, "You know, I find you psychologists very strange." When I asked why, he said, "Well, if a linguist goes into a language setting with certain tools and collects data, and the data simply don't make sense in that there is no structure or coherence, a linguist would presume that the methods were flawed and would go back and rework the methods. Psychologists, it appears, if they go into a situation with a set of methods and find in their study that the results don't make any sense a all, are inclined to believe that the reality doesn't make any sense."

Such observations should encourage us, as behavioral scientists generally, to think about the inadequacy of our methods and our conceptualization. In considering the total dimensions of language, I think there is sense there. I think there has to be.

LANGER: Direct instructional research through the Sixties, Seventies, and early Eighties made tremendous gains. There has also been much growth in reading research as we have started learning from other fields. Writing research is now benefitting from the route that reading research has taken. There has also been a push toward developing a sound theoretical base. I am as concerned as everyone about understanding the reality of classrooms, but one of the things that concerns me most right now is that I no longer see any real instructional research taking place. What predominates is the kind of basic research that has a tag on it that requires talking about the implications. I am uncomfortable that the basic researchers feel they must discuss educational implications. I fear this may do harm to the gains in basic research that we have made over the years.

APPLEBEE I don't think people who do basic research should ever end an article with educational implications. They might end with a comparison hypothesis to be investigated through instructional research, but to go from research to instructional implications is very dangerous. I look foward to a time when the basic researchers will take their ideas and hypotheses to instructional researchers to see whether they make a difference and whether they can be embedded in context.

DICKINSON: As Arthur Applebee says, there may be dangers in trying to give strong instructional implications to teachers, but I think it is important to help teachers develop ways of thinking about the whole teaching-learning process. We may not be able to give a prescription for what to do tomorrow, but thoughtful teachers need to be able to think clearly about what reading and writing are all about.

PURVES: With respect to studies of teaching effectiveness, you should be aware that a new analysis by Lorin Anderson, Doris Ryan, and others suggests that none of the variables identified through correlational studies holds up in a multiple-variate analysis. Secondly, there is greater variance within teachers over time than between teachers in any one variable. If we have a notion that we know something about what we are teaching, we ought to look at how we are teaching it. We might also look at the most effective school instruction, driver education, and see if we can learn anything from it that applies to reading and writing.

TIERNEY: I agree with the comment that basic researchers shouldn't get into instructional implications. But I think we lose a lot when educational researchers don't expose themselves to the phenomena of classrooms, or to the types of things we are looking into in the context of the classroom. That sort of exposure along with question-generating should be driving research and, I think, to a large extent, it is missing.

FRASE: I am about to have a nervous breakdown listening to people say research has no educational implications. There is a contradiction in saying that we can hold just an abstract or theoretical interest in the concrete things we do in the classroom when, in fact, we know that it is really concrete actions that produce educational change. If research in this country has been in trouble the last few years, it will be in worse trouble after the conference if we take seriously the admonition not to draw instructional implications.

But assuming that research should drive teaching is dangerous. Researchers can learn a lot from teachers. Perhaps we should go out and ask teachers what they are doing and where they need help, rather than saying, "I have this abstract theoretical concept and, by golly, you can learn a lot from me." Merlin Wittrock's research shows that you can influence what goes on in the classroom when what you do is draw from what teachers need, then go back to theory and modify the theory.

People are raising questions about applications of the cognitive research we have been discussing. It seems not to have much application because it isn't centered on the practical problems we encounter. One of the things we are discovering, through recent cognitive research, is that a

lot of generalizations are applicable to different areas, and that these generalizations, when you apply them, come down to very specific kinds of knowledge. Until we understand the specifics of these domains--not only in mathematics but in literary instruction--we are not going to be able to tell teachers what to do because our theories will float around in their own abstract muddle and not touch the people teaching English.

HANSEN: There aren't any teachers at this seminar. If we are thinking about the research of the future, perhaps we should involve more teachers, not only in doing research but in private gatherings on research as well.

SMITH-BURKE: Sometimes we work a bit hard to find support in our research for the practices we would like to see in the classroom, whether integrated reading and writing, children sharing writing or whatever. We need to consider not only researchers and teachers but the larger body of policy and decision-makers who will attempt to implement their interpretations of research into law.

PEARSON: Any problem worth doing should be subjected to four kinds of research. The first is to determine what is there. What is our prior knowledge? The second is what is going on in our classrooms? The third is what happens when we intervene and change the classroom ecology. Does it make a difference? Finally, there is the fourth kind of research that few of us do--What happens when we take the idea and make it part of the total curriculum where it has to compete with eight million other

things. Will its effects still show up? If we think that reading/writing relationships are important, we must look at them from all four perspectives.

WITTROCK: I have just finished two years of research with Army soldiers who cannot read or write, and I agree with the point David is trying to make. Prior to the study with Army soldiers, we worked for many years to develop strategies for teaching people to read with comprehension by writing summaries and drawing inferences. We began using these comprehension strategies with the soldiers and soon found that they weren't adequate. Our approach wasn't adequate because the real problem wasn't incorporated within our narrow research base. For example, the soldiers were reluctant to come to class for reading instruction. They would rather do push-ups or call in sick than come to such a class. So we had to deal with the affective feelings surrounding instruction. We had to convince the soldiers that it was possible to for them learn how to read.

We then asked them what they thought reading comprehension involved. They didn't think it involved anything other than vocabulary. Most of them believed that if you knew the definitions of all the words on a page, then you could read that page with understanding. That was their role model. Until we began to get beyond the writing of summaries and so on, we did not deal with a critical problem. What we were presenting was viewed as inadequate and irrelevant.

The teaching of reading comprehension involves more than applying a well-established line of research. It involves working first-hand with the problem in context, and developing an adequate model--one that takes into account the many dimensions involved in changing learners' perceptions

of reading comprehension and of the activities they must perform to read. Research in reading comprehension also involves studying teachers to to learn their models of the teaching of reading and writing. Until we encompass those dimensions, we will not have the best research in the world, nor have a sizeable and lasting positive impact on reading teachers.

REFERENCE

Anderson, L.; Ryan, D.; Sellin, N.; Postlethwaite, T. N. (in press). Classroom environment and school learning in ten countries (tentative title). Pergamon.

II

DISCUSSION OF TOPIC II:
TEXTS WITH DIFFERENT STRUCTURES
AND DIFFERENT CONTENTS,
IMPLICATIONS FOR TEACHING
COMPREHENSION AND COMPOSITION

DISCUSSION

The Seminar considered not only the present state of knowledge about the structure of presented texts, but how these differed from the structure of oral language and the structure of thinking. Participants generally agreed that text structures vary with subject disciplines and with the complexity of the prose, but they reflected far more divergent views on the value of explicit teaching of text structure. In general, The Seminar felt that understanding clearcut and simplified structural characteristics should enhance comprehension of non-narrative prose, but primarily for interacting with content of interest to the reader and relating to his prior knowledge.

Key concerns seemed to be the following:

Text Quality

CALFEE: This fall I was asked to go to one of the more difficult high schools in California to talk with people there about reading. The school is in the second percentile in the state on standardized tests and the youngsters there really do have trouble with reading. Some of the problems are simply getting through the technological mazes provided by the individualized reading in their program, but when I borrowed some high school textbooks in science and social studies and tried to understand them, I found the books to be incomprehensible both in terms of the content and organization, and in terms of writing. I was actually able to run some lessons with the pupils because the kids knew a lot more than they were going to get through these textbooks.

Most of the writing that is included in the basal reader as a way of introducing youngsters to expository forms of writing, or the writing included

in the texts for content areas, pose an incredible challenge to the teacher, to the literate person, and for use as models to teach youngsters who do not fully grasp language and technology. The barriers are serious and need some attention.

Shirley Brice Heath reviewed the paper I prepared for The Seminar, and she asked me, in response, for whom was I writing ? I thought about it for a minute and I said, me. That's whom I am writing it for. I am interested in what the responders are going to do with it. My approach is to use rhetorical building blocks as a way of analyzing text. I have not used the Van Dijk and related approaches, and, to be honest, I think they approach text at a level below my level of interest. I do not mean by that to say they don't have validity, but I work at a different level. I come from the whole to the part and I stop at the paragraph. I don't want to go below the paragraph; and, if it is a rotten paragraph, then I'll try to tell you what the paragraph should have been.

I sat down with a resource teacher and a principal earlier this week who have concerns about their elementary science curriculum. We read what one of their science books said about "heat." There were four sources of heat which are important. Measuring heat, which was the last thing they had, is also important and so is heat transfer. There was another thing that probably should have been tossed out. The text starts with a cartoon on warmth and cold. Interesting without getting to the point. It notes that one source of heat was the sun. Then it provided a little experiment, and moved to vibration, another source of heat. There was interesting stuff there, but only if it were totally reorganized. It took about 15 minutes to do that, no more, and suddenly, the two practitioners could see how to represent information in a way that had coherence and could be taught and understood.

PEARSON: About five years ago in Georgetown, Illinois, in talking to teachers about things to do to help kids understand stories, I was asked, "Why are you bothering with stories? That's not our problem. Our problem is that students can't understand the social studies, science and health texts that are in front of them." So with several students over the years, Meg Gallagher and I have initiated several pieces of research, none of which, unfortunately, has yet been recorded in literature. First, we spent a lot of time in clasrooms of forty-five teachers in three states looking at how teachers deal with texts in social studies and science. What we discovered is that children never have to read the stuff. The teacher reads it for them aloud, or other students read it aloud, or the teacher tells them what they should remember if they had read it own their own. We found little obligation for students to sit down, read a text and learn something on their own.

When we asked the teachers why they did this, their uniform explanation was that half the kids couldn't read the text anyway and somehow they had to gain access to the information.

We also interviewed a lot of kids and we asked them what they thought about reading a text, and how they know when they are doing well and understanding the text. All of them said they judged their progress from one perspective, the feedback they got from the teacher. They have absolutely no ownership of control over or even awareness of how they are doing.

Thirdly, we started worrying about the kinds of text features that help kids. We went into a third study where we actually tried an old-fashioned experimental manipulation of texts by systematically changing features. Our general strategy was to start with the text that came from a science text. Then we rewrote it in three stage. First, we cleaned up the macro

structure, then through rewriting moved ideas to different places, made ideas flow together, gave them good headings and the like. Second, we cleaned up the micro structure, tried to show causal relations, or sequential or conditional relations explicitly. Third, we tried to improve the presentation of key concepts that were not well explained, elaborate on concepts that are not well elaborated, and show relationships among key concepts. When we do this, our text invariably becomes fifty percent longer than the earlier text. However, we find the only thing that makes a difference is the third step. The interesting thing is that we invariably raise the readability of the text at least a grade or two when we add these conceptual elaborations.

Content and Structure

SCHALLERT: In preparing my paper, I had a problem trying to decide on what seemed an easy approach to the topic, reviewing the literature on manipulations of structure and content and the effect such manipulation has on reading and writing.

As I read more and more, I could see one problem which has been bothering me for a while, that thinking and language are really not alike in lots of ways: that there is, in fact, a fundamental difference between them. Thought is complex, not linear; is multi-dimentional; is colored by intense feelings; whereas language is a very linear, one-word-at-a-time process used in order to express things that actually don't fit a particular structure. So content and structure, to me, reduce to the question of thought and language, the old-fashioned problem that we have been dealing with as psycholinguists. When I presented my views of content and structure to a graduate class on the theory and practice of writing, they asked what does this matter in terms

of how to teach writing to second langauge learners. When would content and structure be a problem to them? And, though I am always reluctant to offer implications to teaching, they demanded that. They wanted to know what kind of curriculum would come from the views I had expressed. They observed that I had not dealt clearly with the things that drives content and structure--the intention of the author, or the points that the author is trying to say.

The gaps in our current understanding and future attempts to fill them, which I discuss in the last section of my paper, are hard to deal with. What are the fundamental understandings and conceptions of reality worth reading and writing about? To answer means determining what a domain expert thinks is important to be studied and around which he sees his field organized. Individuals actually hold such views but are unwilling to state them directly in the textbooks that they write. They put them into the research papers, but they don't put them into textbooks. When they do, readers will respond more favorably.

Graphic Design

FARRELL: I feel strongly that typeface, or graphics have a great deal to do with comprehensibility of text and that we haven't looked hard at these elements. We don't know why teachers choose certain type, why they find certain illustrations attractive, whether those illustrations, in turn, compliment the text itself. I happen to have been a consultant on the SAT score panel a few years ago and one of my feelings about the SAT, the exam itself, is that it has an ugly format. One of the reasons students find it difficult is that it's very unattractive. It consists of solid pages of print.

The only attractive word is "stop." There is a lot of black on white. I suggested to the panel that they might try providing alternative versions--one in which they broke the type down but did not change the paragraphs; one in which they changed the paragraphing and perhaps used illustrations. Then they could compare the performance of students of comparable abilities on the old test to performance on the newly designed one. Well, they decided that that would be too expensive so they just changed the cover of the test. It's now green, which they find to be very attractive.

When you look at basal texts, it seems to me that the print is balanced by illustration and that the further students move in the schools, the more they are weaned away from illustrations. Finally, when you get into college textbooks, particularly English textbooks, you don't find illustrations to speak of. I don't know whether we know if it's desirable that people be weaned away; we don't know whether when we are working with adults as beginning readers, we ought to bring the illustrations back into the text and so on. These concerns seem to be in addition to verbal and rhetorical dimensions of tasks.

PEARSON: We must distinguish between illustrations for illustrating narrative and the kinds of technical and graphics material in some non-narrative writing.

Language and Structure

SCHALLERT: I think we need to worry about the issue of how language gets into thought. This is a difficult problem that we keep avoiding in our theory and our research. How is it that you choose the words that you choose

and then, having made the decision to put the first bead on the string of pearls that you are building to represent your thinking, how is it that the next bead is almost predetermined or is somehow preselected by the first choices that were made? How is it that the functional context in which language use occurs influences language use itself?

DESTEFANO: Diane Schallert said that language is linear or, at least is organized in a linear way and I think her view probably comes from thinking about language as written text rather than oral text. When I think of the organization of language, I do not think of it as linear at all. For me the item that is "chosen" is not what is at the beginning of a sentence. If you think about language in a linear way, you have to say that the first item that is chosen is the first thing in the sentence, which is the article. But the article, obviously, is dependent on the noun, which follows it. So when I think about the organization of language, I think about it in terms of, let's say, deep structure and surface structure. You have a thought. You somehow code that thought into meaning units, into elements we generally talk about as morphemes. Those morphemes are then somehow arranged into a grammatical structure which is then given a chronological shape through speaking. Thus we come up with a form of organization --both a kind of talk down and up model. In no way is it linear, at least in any important way. So when I think about the relationshp between thought and language, I put thought even further in the unknown, I guess, but I do code it into language, perhaps using morphology. I offer this as another way of thinking about the relationship between language and thought and about the structure of language and the organization of language.

PURVES: I have been finding that text structures vary by subject discipline. Compare biologists and psychologists in their research reports and one finds the amount of given to method as opposed to results almost in reverse proportion. Psychologists seldom describe the methods or the treatment, particularly in education. Biologists spend all of their time on such description. In the International Assessment of Written Composition, that I am directing, we have been finding that text structures clearly vary culturally. These differences are related to how one uses the text, to what one is supposed to do to a text. Heath found similar variation by ethnic and religious groups in this country. Why is textual ambiguity desirable in literature and undesirable in other subjects. Does this flip in attitude toward textual and verbal language confuse young readers?

HARSTE: I feel that there is room for a great deal of ambiguity in literature because literature is bigger. It is read in bigger chunks and thus offers the reader more room to cope with the ambiguity. The reader has the room to start developing a text rule to grapple with ambigious questions and come to self-reflection and decision. In other words, the ambiguity gives room for the reader to develop a text world of his or her own. Very often in texts which don't have elaborations, but keep presenting more and more information, readers lack a scheme to provide room to start developing questions all around the text world. It seems to me that this is one of the things we have not taken issue with. There are certain kinds of text, therefore, that are appropriate when you have the room to engage in larger form, and ambiguity might be one of them. In other words, there are certain kinds of forms that lend themselves to large chunks of discourse that just don't work

when you try to cram them into a three paragraph or five paragraph theme. It seems to me that ambiguity, real ambiguity, textual ambiguity, such as we find wonderful in some literary pieces, just does not work when we try to take the same form and the same kind of ambiguity and present it within the two-page or three-page text.

FILLION: When we designate a text for instruction, we need to look at unique features included for educational purposes that are not normally found in the discipine. If we call this a history book, how does it differ from Barbara Tuchman's writing for a general audience? If the intention of a text is really interactive, instead of just conveying information, how can we best convey information to get kids involved in the structure of a subject? If the intention of a science text is to have kids raise questions of what is a good reason in science as opposed to what is a good reason in literature, then I think you can begin to account for some of the differences in texts. We probably can't write good texts in non-domain specific ways. Are there any systematic structural differences between texts that are self-selected for reading by students in the non-academic and the academic tracks as we look at the texts that these different kinds of kids read?

Comprehnsion and Text Structure

BRUCE: I like Rob Tierney's model of reading a text but a reader can jump around as he or she does in a conversation. It is a fairly general phenomenon in language that understanding grows out of search—jumping from one island of meaning to another. We need a transactional notion of structure, one that includes a reader's prior knowledge as well as the structure

inherent in the text. We also need a theory that talks about how those two structures are related.

SCHALLERT: Teaching is, in part, creative lying. Telling people things that are not quite true so that they can build a foundation, a simple one from which they can begin to explore the complexities that are always real. This is essential in teaching statistics from my point of view, but in other simplier areas, I don't know.

Langer raised the question as to whether the well-formed text leads to better comprehension. That's a very interesting question on which I wish we had some evidence. I believe that it does until somebody can prove to me otherwise.

But there is also another interesting question. What do we mean by better comprehension? How are you going to assess it?

Story Grammars and Comprehension

DURKIN: If I were to take seriously what Calfee said in his paper--and I found it to be very interesting--it raises the question, "Why is it that research on teaching children story grammar as a way of helping them improve their comprehension has not come up with consistently positive results."

CALFEE: I have a couple of hypotheses about this. One is--and we have someone in the room whose research has established this--youngsters, when they come to kindergarten, already know a fair amount about story structures. They can understand stories in a sense of being able to tell them and they create stories. There is a lot more that they need to learn about

more elaborate and engaging stories, but they already know something about story form. What the school thus can add does not start from ground zero, but from some base. It becomes interesting to look at what the school is teaching in story grammar. I have seen story maps drawn, I have seen youngsters given the label "narrative" for stories, and "setting" and "character" and something about the plot. How far should we really go with elaborating and doing lots of explaining about why it is an important thing to understand? If it is just an occasional device, if teachers are not using it to measure the learning of stories, then the grammars may not influence content recall at all. But it may very much influence the ability of the youngster to talk about stories and how they are created and how they differ from one another. I think it helps give children a foundation on which to play with ambiguity.

PEARSON: I am not aware of research showing the positive impact of ambiguity. The studies that I know show that explicit attempts to teach simplified structures results in superior recall.

GUTHRIE: I had a class of students about the time that story grammars were first being described and I presented story grammar to the class who said it doesn't really explain why a story is interesting to students, or why it could be understood easily by students. The responses that these students stressed were the important parts of stories that were fun, or were sad, or were tragic, or were shocking. What made a story a story to them included the structure, but it also included the extremely powerful affective qualities that they attributed to the story, but really, of course, were related to their response to the story. This relates back to the question of text and how will

it relate to the reader. A story grammar may go a long way toward describing cognitive structure that reader might well perceive, but another part of the text has an affective structure that gives rise to different overall responses.

I asked a high school teacher a few years ago about how he deals with short stories and how he helps students understand short stories. He took a story, "A Rose for Emily," I think, as an example in which he noted that there are about seven levels of interpretation. He first went through a set of very explicit facts. I won't go through every level but in the middle he said, at this level you really have to like Emily. You have to like her. Now, later on, you have to wonder whether she is sane or insane, but you have to like her here, and if you do, then the next level of interpretation becomes possible. In other words, you can start to think of the story as having an allegorical relationship to society if you like Emily. His view was that higher order of comprehension couldn't take place without certain kinds of responses in the affective domain that he believed that the author intended the reader to have.

Affective Response

GUTHRIE: The affective dimension of texts gives rise to many censorship pressures on publishers and teachers. Individuals worry about texts which seem favorably disposed, say, to dishonesty. There are a lot of policy issues raised with regard to the affective dimension of texts and the acquisition of values around the text, that we have not studied very deeply. We need to consider this in relation to thinking about form and function. Tierney and others talked about the functions of writing or reading and I think that we agree that there are multiple functions for any one reading act and one

writing act. We read for more than one reason at a time. One of those is a cognitive reason but there is probably another non-cognitive kind of function for reading. Reading some fictional works may be dominated by non-cognitive purposes. I suspect there are multiple functions for any one event and they are going to be cognitive as well as non-cognitive kinds of functions. Understanding those will help us get a handle not only on the functions themselves, but on the relationships between the form and function that we have been talking about.

CALFEE: The National Assessment results show that readers have a great deal more trouble in handling texts when they are asked to explain or justify interpretations. Two of the issues which needs to be addressed are the issue of attitude and the issue of what effective, critical responsibility one has for a particular text, for one's own information.

PURVES: A key one, let me jump in quickly, is curiosity. Is the text set up to arouse curiosity which is then somehow gratified? Or not? Or is it boring?

Teaching Text Structure

CALFEE: I am interested in how to handle texts as large units, not on a piece-meal basis. I recently read "Three Billy Goats Gruff" to first graders with limited competence in reading and then lead them through an analysis of the characters and plot. They did a very good job of laying out the characters. They knew who the characters were and they were able to bring out the plot of the story as well.

A second group of fifth and sixth graders in the same school discussed with me the difference between science writing and narrative writing.

When texts are well written, children can go beyond the text to the larger ideas and larger structure.

DICKINSON: Calfee's assumption is that by cleaning up the structure, one is going to make it comprehensible. I would bet, however, that, if one wants to improve a third or fourth grade text on a concept like heat and heat transfer, providing a more clearcut structure is not going to result in much improvement of comprehension, because I think there is a real underestimation of the complexity of the content.

I don't know exactly at what age explicit work on text structure would be helpful. Probably I was in graduate school before I learned to look at headings. I had always skipped the headings and moved ahead. Suddenly, it occurred to me that these help. One way to help young children begin thinking about text structure is to take advantage of the fact that children are great for criticizing each other's texts, particularly when they don't make sense. I have noted that during writing sharing time, somebody will read something. The kids will say, "Oh, that doesn't make sense." There may have been a breakdown in structure, there may be a breakdown in content. The children do not distinguish, they will say it doesn't make sense. That is the point when the teacher can ask "Where did it break down?" because that is the point when children then stop and reflect. So I think one way to get children to understand text better is to have nice clear text: the other is to work with their own writing with the realization that part of what's going on is that they are working with imperfect texts which are perfect places to find problems.

WITTROCK: The message I get from these papers is that reading comprehension involved learning the structure of the text. That principle is easily accepted here, but it is a radical idea. It is time we began to take it more seriously, because it has implications about the teaching of reading in school. For example, should teachers and textbook authors provide students with ambigious or explicit structure? The answer depends upon the student's prior knowledge, the background the student bring to a situation. Sometimes there is adequate prior knowledge or background useful for student building of structure from ambiguity. Sometimes learning must be more accomodative, such as when reading science texts. One of the ways that science text authors try to reduce the difficulty level of the text is to make the structure explicit. They assume, usually correctly, that the student's background knowledge might interfere with learning the new concepts in science.

The science author's solution to the problem, which consists of making the structure explicit, is a first step in the right direction. It assumes that if writers are clear, organized, and straight forward about the scientific concepts, the learning will improve. However, the underlying problem often is that the learner has a model of the scientific concept that is incompatible with the one that the science text author is trying to teach as researchers in science education have recently discovered. In interviews, they have asked children what they think about friction, motion, and electricty. The researchers are surprised by the unanticipated models they get from children. Making text structure explicit is only a partial answer, although it is a move in the right direction. A more complete answer to the problem of improving reading comprehension involve understanding the relation between children's models of events and the phenomena, and the scientist's or author's model of them, as they both are involved in the generation of structure.

III

DISCUSSION OF TOPIC III: ORAL LANGUAGE, ITS RELATION TO WRITING, READING, AND RESPONSE TO LITERATURE

Note: In this segment of The Seminar, Miles Myers reviewed this history of research in speaking and outlined what is known about the similarities and differences of spoken English and written English. David Dickinson reviewed research in oral language in relation to literacy and literature, particularly at the early childhood levels. Roselmina Indrisano in her comments spoke to the importance of oral language for disabled learners; David Dillon called for more studies of purpose and meaning in language.

DISCUSSION

Differences in perspective presented in the two papers stimulated discussion not only about the value of exploring the connections between oral language and literacy but about the neglect of oral language in the classroom and in research.

The need to focus more attention on purpose and meaning in language was of concern to most seminar members, as was the need for complex study of the philosophical and social aspects of language as well as the psycho-loginguistic.

Among the key issues were the following:

The Kinds of Language

DICKINSON: Somehow we must see the importance of developing some kind of a general theoretical framework for understanding what kind of language is important and why. What is the kind of language we want to be facilitated in classrooms? That's why I underscore the importance of looking at the kinds of language that are happening in different contexts within a classroom today. In the reading done for my paper I found few examples of children actually in classroom using the kind of language that I think is valuable. Last year in looking at children's writing at the computer in the first and second grades, I found some examples of language that I think we would like to be having happen. For example, I saw a second grade boy working with a first grader in improving writing. The second grader operated as the critic. The first grader was doing most of the typing. It turns out that the first grader is a good speller and the second grader was

not. The second grader had a great time being an editor. He too picked up on what had been written and he kept questioning the first child: Why don't you write this? What does this mean? and so forth. By interacting, the two managed to clear up their sentences.

I was struck by this because from looking at professional discussions of revision, you wouldn't expect the children at this age could have this kind of reflective ability to examine language. Thus, I think it is worth trying to find other occasions during the day when this kind of language can be fostered. It is useful to try to look in classrooms and understand better how we can create situations that will naturally result in this kind of talk.

I also think it is important to think about longitudinal research, especially in the kind of framework that I have laid out. We need to look at language development over time in relation to relationships between oral and written language.

In thinking about the dissemination of research, one possibility is to think about packaging it in alternative forms. I am working right now with student teachers and trying to figure out what I am going to present to them. I have been struck by the difficulty of coming up with materials that can really communicate what I am trying to say. What I would love would be to be able to purchase the Heineman's video tapes on the process-oriented curriculum.

Oral Language and Writing

MYERS: K-12 classrooms need a taxonomy of discourse that naturalizes the text and somehow makes the text appear to be a natural event. For example, you start explaining to or asking students what would happen if we

were to change the rules of a conversation sentence, for example, or what would happen if we were to start all conversations with a clear thesis. What would be the effect of these changes on conversations? By simply substituting ways of saying things, taking, for instance, the rules of composition and applying them to conversation, students discover rather quickly that they are following a set of rules in their conversation and that in fact, that the writing they are doing is often conversational.

The issue was raised as to whether the perceived relationships between speech events and writing applies to older students, secondary students, let's say, and not to preschool students. I think this may be true. However, I have some acquaintance with preschool writing and a very small acquaintance with elementary school writing and I know that such students, as a matter of fact, very early on, start writing something one might call a social note. Eventually in high school, the social notes have a set of rules very much like conversational rules. There is the obligatory fragment, the obligatory parenthetical expression, exclamation marks, no clear thesis sentence; as a matter of fact, almost no conclusion. A lot of the signs that young students sometimes put up in their boxes during preschool or on their doors at home, or on their belongings, announcing that an item is not to be touched or taken, or that it is the property of such and such, have to me a very presentational tone or attitude. So I am not altogether certain that some of these dimensions of language do not occur earlier and are not interesting ways to think about language development.

We need to treat issues of audience and subject and text as co-occurring features. Too often audience and subject are treated as separate dimensions and that seems very wrong. When we look at the way people actually engage

in picking a subject or picking an audience, they almost always consider all dimensions concurrently. The moment that statements start being laid out on the table, the rules that govern all texts start implicity to be observed. There is a distance of a certain kind that gets set up, there is a decision made about whether or not the realities proposed in any way approximate actual conditions, there is a decision on whether the information is going to be highly organized, whether the writer will be cooperative or a critic. All of these decisions start coming into play, and then they seem to me to become the basis for making meaning. It isn't just the question of combining oral and written discourse; it isn't just the question of combining function and structure; it is also a question of combining one's view of oneself with what one is doing. We are not teaching conversations or exposition; we are teaching people to see themselves differently. I am troubled by taxonomies that separate texts from every day life. Elaborate distinctions among description, autobiography, and biography, for instance, take us in the wrong direction. The distinctions break down in "real life," but students know what conversations are.

Dickinson raises three or four forms that one might use with respect ot purpose and meaning in communication. Any taxonomy to be workable in schools must focus on a few stable forms of language to be taught and teach them as prototypes around which variations can take place. These prototypes represent central tendencies of forms.

It is important to remember that the teaching of reading and writing never escapes idology. Speech events are instruments of production in the same way that any other tool is. And these tools produce particular kinds of politics and knowledge. Therefore, a conversational tool is a way of turning

a group of people into equals or friends. In other words, you can depoliticize them. Presentational or ritual speech event, on the other hand, is a way to establish a different kind of politics. The presentational politics of individual authority or the ritual politics of an authority is based on a sense of deference to elders. To write highly academic papers, our students have to have elders. That's why we teach them the Dewey decimal system and send them to libraries. The act of writing the research paper is the task, but it's the process of establishing a community of elders that one speaks for. Therefore, we are giving these students tools and these tools as a matter of fact can be used for political purposes-- to produce certain kinds of knowledge. If they use them correctly, they will some day find themselves in positions of authority.

DICKINSON: To abandon considerations of the relationship between oral language and reading and writing, as David Dillon suggests, would leave our researchers and teachers in the early grades in a predicament. Certainly teachers have to be concerned with oral language. The kind of classrooms that we would like to develop would be ones where there is rich and varied kinds of oral language use. Research descriptions are useful in helping us describe the kind of language we are looking for, what it is that we want to have happening. And if we want to say what it is that we want to have happening we need some kind of theoretical justification. We need this rational to help us create situations where children have certain purposes as, for example, in my example of collaborative writing on the computer.

I also think it is important for researchers and teachers to understand what is important during language events because the kind of talk that I suggested being important is not something that the ordinary teacher without

some kind of theoretical rationale would recognize necessarily as being important. It is important further to have ways of linking the features of language that are important to children's purposes and to the purposes of teachers. It is particularly important that we help teachers understand the relationships of oral language to what they see as their primary role in the early grades instructing children in reading and writing.

We must recognize the strength of children who come to school from backgrounds where they haven't had experience with books, but may come from oral rich cultures with other ways of expressing ideas. In short, we need to appreciate alternative kinds of power structures in relationship to what is happening in the culture and in the schools.

Decontextualized Language

PURVES: Myers is saying that there is no such thing as decontextualized language, and David Dickinson seems to be saying there is such a thing. I tend to agree with Miles. Language always exists in a context, even if it is not the interactive context of the speaker and listener. Even a linguistic sentence in a text occurs in context. However, I think there are different kinds of languages used for different purposes and one type is the language used for reflecting on language. Most people would consider this as a form of decontextualized language, the kind we use in talking about text.

PEARSON: Whatever you do, don't call it decontextualistic. Call it reflective. You'll get lots less reaction from people. I'd like to hear an amplification from Miles on the extension of the speech event framework into the reading situation. As I understand speech event theory, you start

with an intention from a sender, a speaker or writer perhaps, and you end with the apperception of intention with a receiver; understanding occurs when that apperception is grasped. In reading we talk about the open text, presenting validity to the notion that a text indeed has relative meanings depending upon the intention of the reader. We know some chapters of science textbooks could be read in total or in part, and that the intention of the author could be realized in many different ways. It seems to me that this concept is a bit loose in specifying how reading comprehension takes place. Could Miles amplify his notion of how the speech event framework works for reading comprehension?

MYERS: Let me take the story, "The Garden Party." This particular story established the storyteller as conversational, beginning with the first sentence about grass being green and flowers beautiful and proceeding to intensifiers (very) and approximations (kind of) about simple things during the day. Everybody is so happy. That general tone has elipsis in it. It is a very conversational story. Now one of the things that students have trouble with at the end of this story is the question of what is an appropriate question. What does one ask or what does one think one is supposed to ask for certain kinds of stories? If they start treating the story as if it were a science text, they ask the precise age, height and so on of the person. Some students do this with a story like Poe's "The Masque of Red Death." They want an exact description and identification of the intruder, and for them the story fails because it does not yield definitive answers. At the end of "The Garden Party," Laura presents a gift. She is wearing a hat and she appologizes for it to a family in which somebody has died. And her final comment in the

story is something like, "Isn't life wonderful...isn't it." Now if one were to treat that story as a presentational piece, you would come to it in a very critical manner. As a matter of fact, you would point out that this was a rich family having a party on a day when a poor man died. You would treat Laura as a middle-class or upper middle-class young girl who just didn't know anything about what was happening to the poor people in the world. All of that is true--except that it has little to do with the meaning of the story. The meaning requires our acceptance of Laura. We go along and say to ourselves, isn't life that way. A kind of ambiguous cooperative mood is required from the reader.

If you take a different kind of story, like a Faulkner story, you are required to be a critic. You are required to take positions, sometimes contradictory positions, both of them being true. An example is Faulkner's "Barn Burning." This story requires students to both hate and admire the father and both attitudes are to be based on an analysis of the data in the story. There is substantial evidence to support both positions.

Let me also give an example from mathematics examinations. When the students are given math problems in a very casual manner and they are told they are going to do something interesting and they are allowed to do it any way they want to, they will draw on their experience, they will talk with each other about strategies, they will make guesses. They will say that the answer is pretty close to such and such. They will give the kind of approximate response. If, however, we give them the same math problem in a very presentational kind of form, tell them today you are going to be tested on XY&Z, they tend to hide their individual strategies. They won't show them to people. They will try to get exact answers.

As a matter of fact, the same thing is true for teachers. People make an estimate about what they think a situation is. If they think it a conversational, social event, they are liable to count on their toes. But if they think it's a presentationl event or highly formal ritual event, they will believe certain methods of solving problems aren't allowed, or certain kinds of answers aren't allowed, and they will not give them. People make an estimate about what the situation is, what is going on, and sometimes they get it wrong. But I think they do make that estimate, and these estimates govern the problem solving strategies they use and the form of their responses.

PEARSON: I think we can discuss the traditional view that there is a sender and a receiver in a message. Then the whole thing works; you know, the old notion that reading is the "undoing" of writing. Rob Tierney and I were working on the metaphor of reading as writing, and the way that we got it to work was by hypothesizing that every reader also has an inner reader. Then we were able to view the act of reading as an act of creating for your inner reader an even more thoughtful message than the one you received. So we have established reading as an "action" and we can view reading and listening as "acts" in the same way we view speaking and writing as "acts."

On Complex Consequences

DURKIN: From time to time I think of the academician's tendency to make complex that which is simple and, when I was reading Dickinson's paper, I saw an instance of making simple what is really more complex. It appears under the section of "Reading and Children." One of the things said is that poor black parents do not read regularly to their children. A couple

of years ago I did a study of very poor black children in fifth grade who were outstanding readers. At that time, "effective school" research was much in the headlines, and I wondered if I would find these children attending schools similar to what had been described in the literature. It was amusing in a way that what I found to account for their high ability in reading was the fact that, almost without exception, they had been preschool readers. Having studied school readers for twelve years, one would think I might suspect that some could have been preschool readers. Most were but what was especially interesting, is that the majority had been helped, not by mothers, but by grandmothers. So I found grandmothers played a central role in their early acquisition of reading. But I think that being read to and starting reading earlier than others was just part of the picture. I suspect that once these children got into school, they were perceived by their teachers as being unusually bright children because of their early reading ability. As a result, they were placed in the high group, and they stayed in the high group. In other words, because they were perceived by their teachers as being able students, a lot was expected of them, and they delivered. When they reached fourth grade, reading instruction was departmentalized, and consequently these children were placed with the so-called gifted, and they moved right on with everybody else. As I watched them until they finished sixth grade, they continued with their success.

So I think sometimes picking out certain kinds of things, such as reading or not reading to children, is questionable in the sense that it is likely to be only one part of the picture. You not only have to look at that variable, but you have to look at its multiple consequences including how they are percieved when they get to school.

SQUIRE: Myers really provides a demonstration of what happens when you allow practice to generate theory rather than theory to influence practice. Indrisano and Dickinson particulary talked about the value of video cassettes as a potentially effective way of reporting certain kinds of research results to teachers. Surely it is a different form of dissemination with more potential. One of the things I'm convinced of is that we must provide more models for teachers. We talk a lot about modeling for kids, but one of the reasons so few teachers can teach as well as as we did when we started is that when we started there were many demonstration schools. Se could see good practice, not just read about it. Today, unless you have a powerful imagination, it is difficult to imagine some practices working in the classroom. I don't know how we can bring demonstration centers back again. An alternative might be doing some things with video cassettes.

SMITH-BURKE: I recently showed my Foundations of Reading class a film that had just been prepared by Carol Edelsky about her project in whole language classrooms. The teachers were using a language-across-the-curriculum approach. What became really apparent was that none of these students, who were rather young, had any kind of image or had even thought about this kind of a context. Their response was that it was impossible to create because of the constraints operating on them as teachers in the schools, such as the forms that they are required to fill out or the materials that they are required to use. They feel that there is no way around certain kinds of constraints that they live with; they really didn't have any concept of a whole language model of instruction or how to implement this type of program.

Oral Language

HANSEN: When we talk about oral language, we are talking about interaction in the classroom. And we also think about the social context of the classroom. We are afraid to let the children talk because we may have problems. Management is the thing. We have to really decide whether or not oral language is really necessary for meaningful concept development. I think talk is necessary.

SQUIRE: A fundamental issue, not in research as much as in curriculum planning, is determining how important oral language really is. One cannot look at schools today in this country and say that anybody regards it with much importance at all, except perhaps in kindergarten and first grade. The central problem is how does oral language relate to reading and writing since listening and reading seem more closely related in many ways than speaking and listening--or at least recent research suggests this.

LAROCQUE: All researchers seem in agreement about speaking and listening being the primary function coming before reading and writing? Yet I have heard no one speak about a hierarchy of this kind and I would be interested in whether anybody is interested in researching this, or whether this is just something that everybody agrees upon. Jim Flood said something about children not being able to handle exposition early in their grade school careers and it struck me suddenly that this may be why we are having to teach writing these days from a process model, the kind of personal narrative model, because narration may be all that students are familiar with and can handle. Would that be a possible link between reading and writing?

There are specialized skills that are necessary to read certain genres--particular skills for poetry and for biography, and for drama . Would we have better luck with students in understanding certain kinds of fiction if they knew what some of their special skills were.

HARSTE: I've been sitting in the back of special education classrooms in an effort to do a state of the art assessment of what reading comprehension looks like in special education. I find it is a sort complex and have resorted to positivism to develop a framework that helps me explain my concerns. One of the constructs that I am playing with is Halliday's notion of field mode tenor. From this perspective one can talk about various field structures that exist. One of these is a task structure, so that in a reading event you have a structure which requires some sort of processing that has to go on to understand the text. In addition, there is a participant structure which is goes along and supports the task of a structure. In most literary events there is also a modality structure. As a reader or writer, I don't need to stick just with written discourse; I can move to alternative communication systems. Now it strikes me that in these classrooms, and in some of our discussion here, that what happens is that the modality and the participant structure isn't acknowledged or allowed to operate. That is, when the problems occur the kids are referred back to the task structure. The only person students can talk with is the teacher who sends them back to the task structure. Further, the teacher presents the task of reading as if all of us agree on a single model of beginning reading. Essentially she tells them that you look at this word, sound out the syllables, and slowly you get through this particular passage. There is no modality alternative available. I think this relates to

what we are talking about. We must recognize that when we are talking about teaching or literacy we are talking about complex events and that oral language is, for the most part, always an integral part of these events. The relationships between oral language and written language is extremely complex. Both forms have different semiotic potentials that support each other in use.

I have personally turned to semiotics to look at what it is in oral language that potentially supports written language and what semiotic potentials written language has when oral language is and is not present. I think we are being too restrictive and directional here. We are dealing with a very complex event which must be studies synergistically.

IV

DISCUSSION OF TOPIC IV:
STUDIES OF CLASSROOM PRACTICE, CLASSROOM INTERACTION, AND INSTRUCTIONAL MATERIALS:
WHAT HAVE WE LEARNED?
WHAT NEEDS TO BE DONE?

Note: The two papers presented in this section of The Seminar--one by Bryant Fillion and Rita S. Brause, the other by M. Trika Smith-Burke--review the mounting studies of effective teaching and classroom interaction, both those of experimental and naturalistic or ethongraphic bias. Arthur Applebee in his commentary felt the studies needed to relate better to theories of language learning. Durkin raised issues on ethical practices in interpreting and reporting research findings.

DISCUSSION

In considering the varieties of research and the diverse ways of involving teachers in planning and conducting studies, seminar participants expressed concern both about simplistic anticipations and simplistic interpretations. The discussion seemed largely a plea for awareness of the complexity of the classroom.

International Studies

FILLION: As a result of my Canadian experience, I think a lot of our students and researchers, especially those looking at classroom interaction, would do well to pay attention to the publications of the United Kingdom. I don't think we do this systematically. Our bibliographies are often totally Americanized. We are closing our eyes to an important area of research.

SMITH-BURKE: I would like to echo Bryant's comment about the excellent English research literature and also research literature from Australia. I assumed that Bryant was going to cover such research so I only made slight reference to it in my own paper.

Changing Contexts

FILLION: I now seriously question the Gage statement that we quoted in our paper, concerning the continuing search for a scientific basis for the art of teaching. Increasingly I think this is a well-intentioned but misguided enterprise. We may find and should look for a scientific basis for the effective presentation of information, but we may find more there from

the study of media and advertising than from classroom practice. I think we may find a scientific basis for developing discrete skills, given student motivation and clear goals, but I think a scientific basis for the act of teaching is only possible if we accept a very reductionist and far too mechanistic view of human beings and the nature of human learning. If we take as the intention of the studies the improvement of students learning, we have to remember that learning and skills cannot be imposed on teachers anymore than they can be imposed on students. I agree with Jim Squire and Jimmy Britton when they wrote in the introduction to the revision of Dixon's Growth through English that real curriculum change begins with teachers reflecting on their own experiences. The main educational benefit of classroom research is in prompting teachers to that kind of reflection. We are not going to find the ideal way to teach or the ideal way to organize classrooms. The world just isn't like that. What we may succeed in doing is proposing models that can prompt teachers to reflect on what they are doing and perhaps make some changes. I think classrooom research can serve an important function in holding a mirror up to present practices. Think of the impact on teachers of Dolores Durkin's study and Arthur Applebee's study and other studies that point out what is actually going on in schools. In Ontario when we started doing writing surveys, the initial response on the part of schools was "that can't be the way it is," followed by "but maybe we'd better look". And in fact, as a result of the first three writing surveys that we did, I was subsequently involved in 15 writing surveys where schools asked us to come and help them find out what their current situation was. The critical point is that we were working with alterable variables, to use Bloom's term. These were things that teachers in fact had control over, but didn't know what

they were doing, such as the amount of writing that was being done. Most teachers assumed that a great deal more writing was going on than in fact they were asking for. I think classroom research can investigate and perhaps increase our understanding of how variables identified in other studies interact in these contexts, and it's crucial that we look at them in varying contexts.

I dont think we give sufficient emphasis in our paper, or in this conference thus far, to the critical importance of focusing on the so-called minority learners. I don't think either in classroom research or in other areas of research that we are discussing, we are giving enough attention to this. Given LaBov's recent findings of increased diversion between white and black English, given the present educational stress on excellence that challenges attempts to achieve equality, and given the demographic evidence that these so-called minorities are in fact our future school population, we ignore these children at our peril. We need to know and soon the extent to which our research findings about language processes, language development and pedagogy are adequate to the task of helping these children whom we have so far failed to help.

SMITH-BURKE: I have been slowly changing my research paradigm in the last four years and in order to examine what a classroom is really all about, I have come to the conclusion that it is a very complex place. One of the words that is used constantly is the word "context." I think it is a dangerous word in the sense that there are many different definitions for context. What I would like to address then are the different aspects of context that I did not addresss in my paper. The first is the physical context of the classroom. Whether desks organized in rows or in centers can make a big difference in

terms of prompting communication. What materials are available in a classroom: basals, children's literature, children's writings, and so forth?

Most studies of process writing, particularly in the early grades, have not occurred in inner-city classrooms. Again I want to echo Bryant's comments about the fact that we really have not spent enough time looking at the education of not only minority kids, but all poor kids, kids who come from the lower socio-economic groups of our society. They are the ones who traditionally end up failing in our system when you look at standardized test results. A few weeks ago Don Graves was talking about sending a child to the library in a New Hampshire school to pick up a book that he needed to do a report on snakes. In New York City schools the child would probably get into trouble for being out of the classroom. The other major problem in New York City schools is that the libraries are often locked so that the books won't disappear. Thus we have, in terms of physical environment, very different sets of problems in urban, surburan, and rural schools.

The second kind of context that I really didn't deal with in the paper is psychological context. I think Merle Wittrock really addressed that yesterday in terms of how the learners or teachers see themselves in terms of their power and control over their own environment, their own lives. In literacy learning, many children don't see themselves as controlling whether they can learn or not learn. Another thing I am particularly concerned about is the passivity that I see because teachers have been de-professionalized. They have had a lot of control over their own lives taken away by the principal, the supervisor, and community school boards. We have some schools where these conditions are not true, but in general I think it is something that we need to consider.

The third kind of context that I really didn't address in the paper has to do with social context. When you get multi-cultural, pluralistic students in a classroom, they have different attitudes, values, social rules, and knowledge. There has to be a set of social rules that are developed so that a group such as this can exist together in the same space. Call it management. Call it social rules. Whatever. Slavin has done some interesting research that tries to promote cooperation among minority and maintream children. One problem that I think we have to examine is the effects of the individualistic, competitive model that prevails in many of our schools.

The fourth kind of context has to do with language and literacy development. I did allude to this in the paper but I want to stress the idea that literacy skills develop depending on the kinds of literacy experiences that one has in one's life, how one views literacy, and the uses that are made of it. We really need to take a good, long, hard look at the uses of literacy in our teachers' lives outside of school and in schools as well as the children's. Shirley Brice Heath's book is a superb example of the kind of model that we might want to follow to help children understand the uses of literacy in school.

Another issue in terms of language and literacy context that I see happening progressively in inner-city schools is the fact that minority children and poor children are getting more and more skill drill practice in basic skills with very little content. There is little emphasis placed on learning about the world or relating the literacy skills to the content areas. I teach occasionally at our Puerto Rico campus. In community colleges in Puerto Rico students are getting a healthy dose of skill drills with the enevitable emphasis on right answers, whereas students attending the University of

Puerto Rico are getting programming that uses the computer as a tool and with emphasis on the thinking processes.

The final issue that I didn't address in my paper has to do with the effects of school and community contexts on the classrooms. I am concerned about the constraints that teachers have to operate under and the kinds of mandates that are being placed on them. I have seen a policy in one district that teachers may never tell a child that the child is wrong. Some really interesting policies are being developed that are not influenced by people who know about literacy development.

I agree with Bryant Fillion that we must think about teacher change in terms of teachers being learners. We must acknowledge the fact that they bring knowledge and values and attitudes to every teaching situation. Teachers have a very complex environment to organize, manage, and coordinate. Trying to influence changes in practice in classrooms requires a long-term commitment to work with teachers in schools over time. It involves reflecting, and helping them reflect on their teaching experiences. Also if we analyze our own teaching on college campuses as much as they are asked to analyze and reflect on theirs, interesting results might ocur.

PURVES: I have the sense that some classroom research precedes from a motive that I find somewhat suspect and I want to know whether others also noticed it. The motive appears to be that the researcher is going into the classroom to find evil. I find that a lot of the researchers are going trying find out that what the teacher is doing is wrong. According to some doctrine I think Arthur Applebee was raising this issue about some of the ethnographic studies. Now I have directed a couple of doctoral studies which

identify teachers whom everyone says are good teachers and then the researcher tries to find out what is wonderful.

I am not sure that either of those motives are at the base of all research, but it might be better to spend more time on finding out what is, without the influence of prejudice.

FILLION: I am not quite sure how you do that. You can't do in with a blank slate. Nobody does. The issues that we keep coming back to have been argued for a long time. Many hark back to the old controversy over traditional versus progressive education. But I don't know how you would simply go in and document what is. You could go in and count; you can go in and look at time on task. You can look at how time is used in classrooms. You can count number of books, pages read, and such things. But it always comes down to a matter of interpretation and you interpret on the basis of a theory. I don't know how we avoid this situation, and it is one of the problems I have had with ethnographic research generally and the notion that some of my colleagues suggest to students: that they should not have a hypothesis before they go into the classroom. Yet I wonder who would send anybody without a hypothesis into a classroom in the first place.

The Effects of Poverty:

CALFEE: We must concern ourselves with the effects of poverty. There are those who know that they are poor and that they will stay poor and that is just it. We do know a fair amount about the dynamics of the situation. Shirley Brice Heath conducted studies in North Carolina to measure conversational exchanges of a formal linguistic sort between parents and students

in three different communities, middle-class white, lower-class white, lower-class black. My recollection is that the number of exchanges over time amounted to about 1500 on the average for the lower-class youngster and about 25 to 50 for the other two groups. Think about the differences in what the youngsters bring to the school.

In talking about the hypotheses that we bring into the classroom, there is also the question of value and the values that the researcher uses. One of the values that I bring in is something that was instilled when I was a student. It has to do with equality of educational opportunity being an important foundation stone in this country. That is what they taught me when I was young. We haven't really achieved it but the idea still rings very clearly as something that I think we believe that we are aspiring toward. Other countries have very different values and I suspect that not everybody in this country aspires to that value. We haven't quite defined "equality" yet. The Brown vs. Topeka case was an important move forward but nobody talked through what it meant or what it was going to cost in terms of resources and changes. Maybe it is not possible to undo what the home gives to children or what children bring in from their home background. It is not clear to what degree that is even modifiable. But we do know some things about what is going on among youngsters who are identified as low ability, a variable that is highly correlated with certain other indicators. These are the youngsters who get drill and practice, who get more phonics than "book reading". Such children are not challenged or asked the same kinds of questions as other children. And so our schools continue to work as amplifiers, if you will, or at least sustainers of the differences that existon entry to school. I am teaching a remedial reading class in one of the lowest high schools in California in

terms of standardized test scores. My colleagues and I are working with very difficult youngsters, who know that they have failed and that they will continue to fail. I am impressed with their efforts and their knowledge even in this situation. One youngster is from Viet Nam, I think, and I saw him the other day working on a worksheet. He had to look at a picture and then choose one of four words that matched it. Each of the words was mixed up. There is sword, for example, with a picture and the other spellings like sowrd, dwors, but not words.The youngster had gotten a pocket dictionary. On the sly he looked up all the answers in the dictionary until he found a match. He hadn't the foggiest idea of what he was reading about, what he was doing, but he figured out a strategy to answer the questions. My point is I do not believe that it is the smarts that these youngsters lack.

We do continue to segregate these youngsters. Even within a single district you can find two entirely different school systems, serving two entirely different communities and sustaining differences in those communities. We still have schools that are segregated. In large cities and in rural areas. We also have within schools, segregated classrooms.

Reasearch by Allington shows that even within classrooms, when we take youngsters who are at the low end of a variety of assessment measures and lump them together, the teacher works differently. So there is something going on instuctionally that explains a lot of the differences.

In New York City, we differentiate according to private and public school systems. Thus there are things going on in a very large context politically within this country that sets some limits. The real question that intrigues me is whether the teachers working within those contexts are doing the most that they can.

Spending Time in Classrooms

TIERNEY: Among the things that concern me is the void which exists between teachers and researchers--especially the extent to which researchers impose their perspective upon teachers and disenfranchise them as contributors to research studies. In the case of observational studies of teachers, very few researchers have teachers reconstruct their rationales for teaching; instead, researchers have a tendencey to impose their own perspective upon what they see. For example, I recently reviewed a study of teacher questioning in which the author suggested that the teachers asked a random barrage of questions without ever checking with either the teachers or students about their rationale.

Two few researchers spend time in classrooms either collaboratively learning with teacher or walking in their shoes. Unfortunately, even our use of terms reflects a relationshp between research and teaching which detracts from collaboration and communication. For example referring to the "translation" of research into practice is symptomatic of the "you" and "us" mentaility which pervade our educational communities.

Perhaps this separation of reasearch from practice contributes to the false hopes educators hold for their interpretations of their data. I wish educators would evaluate interpretations of research findings with the critical eye they appy to commentaries about political issues or economic forecasts. I think that it is unfortunate--perhaps anti-intellectual--to regard or advertise interpretations of research as definitive, gospel or prescriptive. Certainly the papers of Fillion and Smith-Burke as well as recent national reports should be viewed as interpretations requiring critical review.

SCHALLERT: I want to provide an example of going into a classroom without a hypothesis. I volunteered to be a mother helper in my son's first grade classroom and I went every Monday morning from 8:30 until 10:30. I supposed my motive was to retain control over his learning by knowing what was going on. But my job in the class was to be in charge of the mother helper station and what happened on Monday mornings was that I was in charge of the writing exercise. The teacher meanwhile met with the kids in the writing group and there were two other groups who were free floating. My job was to keep my little group basically under order so that one-third of the kids, not with the teacher were under control, and thus only half the class was out of control on their own. I have never been an elementary grade teacher so I didn't know what was going to develop, but I thought it would be interesting, especially since I was in charge of a writing exercise. The whole first semester we did journal writing every Monday and I found that what was surprising is that the children over time came to hate the journal writing. It got to the point where I finally told the teacher I thought we needed to change the assignment. They didn't like it at all. I can't stand to be with them if they can't stand their task. But I did find myself noticing a few things. I suppose that I was starting to develop a hypotheses about what was going on in the classroom. I noticed, for example, that they would go through great lengths to avoid using pronouns even though in their oral speech they came up with pronouns all the time if they were relating a little incident. But when they were writing, which at first meant telling me what to transcribe, they would never use a pronoun. They would say one thing and they would repeat. My father said this and my father said that and my father said that. I thought those were interesting little observations. But I had

someone come into the class to observe the reading program, that they probably wouldn't have looked at what was going on at my table or at the little centers around the class, which were actually quite clever and probably stimulated a lot of very good thinking. My prejudices had told me that the teaching would never work. Yet children are actually doing quite well. But you can't go in there with a hypothesis and hope to have it confirmed quickly, because learning just requires more time to develop.

I am also over surprised how much the social climate influences the children. They have developed a society, albeit not a perfectly happy one. They hurt each other and they are rude to each other and they are mean to me and they talk a lot and they say all kinds of things and... There are a lot of things that are going on there, and I find the whole situation very very rich and difficult. I went in without a hypothesis and found just fascinating things that I don't understand.

PEARSON: One of the things I wanted to tell you about is directional research. It is hard to do logically. It is hard to do in terms of time and energy, and it is hard to do politically. Everyone tells me that there are people out there dying to try something different from what it is they do. Well let me know the names of those people. Because every time I have tried to evaluate an instructional study and say, "Do you want to take your current science class and teach these units of earth science for three weeks, because we can't evaluate on techniques in less than three weeks." Then all of a sudden time becomes important. They respond, "We can only afford to give up three weeks of this. But we'll even let you use the scores on our tests." The people get their backs up against the wall, and all of a sudden

the curriculum that everyone complains about becomes important. All of a sudden all those worksheets that people complain about in reading become really important. They worry that children will miss the conventional curriculum. It is hard to find people who are willing to let you in to do obtrusive research.

I don't like the term direct instruction. I prefer to talk about explicit and implicit instruction. I know at this point that we have three big concerns about it. The one thing that we really never get at in our research is any real sense of functionality, that is, providing kids with any real reasons for doing things. This is a variable and whether you study it naturally or experimentally it is an important variable to evaluate in reading or writing. A second concern is that if we want kids to develop larger comprehension skills and strategies, we should never try to teach these comprehensin skills and strategies directly. It may be that the best thing is to help children acquire knowledge and in the process of acquiring knowledge, we will be forced to deal with all the different structural and functional attributes of comprehension that any good learner would be able to use. It may be that in that quest for knowledge these other things just sort of fall out.

The third point I owe to a serendipitous experience I had last week. I was cleaning the top of my desk at home and found a 1980 edition of a newsletter from the Laboratory in San Diego that I had brought home to read five years earlier. And there was a neat article suggesting that the smarter get smart because they are not inhibited by unhelpful instructional routines which frequently impede the learning of the slow child. The first question we have to ask about instructional routines is whether they are helpful or misguided. Sometimes when we ask students to pay attention to strategic awareness and monitoring their various strategies, we have to face the possiblity that

what we are doing may be turning relatively simple and truly obvious tasks into introspective nightmares.

HANSEN: Rob Tierney said we need very careful descriptions of classrooms in order to understand them and then he went on and said that we need to step into the teacher's shoes. That is what I have been trying to do and when you try to do that, I don't know if you can give really careful descriptions.

I have been going into classrooms more and more in order to understand better and better what is happening in the classroom. I spend three days a week in a fourth grade. And one of the reasons I started to do it is because last year I only went into a room a third of a year. This fall I went into the room twice a week and the teacher chose me from three people and I chose her from three people. I am in her room by agreement. We both wanted to work together this year. But she is different from me, and we drive each other crazy. Last fall we had a breakdown. She said to me, "You know, Jane Hansen you've got to get one thing straight. You'll never tell me what to do." So I thought that the thing to do was to get to know her better. I started to go into the classroom for three days a week instead of two; I can't go more than three days a week. And I do work with her. I teach reading groups. I read the children's books. I have the writing groups along with hers. At times if you came in you probably would not know which person was the teacher. As she said to somebody last week in a very positive way, "Jane is just a member of the class." We talk for the entire noon hour three days a week. We write back and forth. Everyday that I am in her room I write about what I see, and she writes back to me before we teach the next

day. She also comes to my class, the one I teach on Monday nights, and sits there and writes down everything I say and everything the students say. Then she writes about if afterwards and I write back to her. I mean I am almost living with her and we now get along fine. We feel close. I understand what she is doing and why she is doing it and she understands what I am doing and why I am doing it. Out of respect for her, there is no way that I could ever tell you why she does some of the things she does and what really goes on in her classroom or in her mind. But I can tell you some of it. The more I get to know her and the closer I come to her, the more I know I can't tell it all.

DICKINSON: If we want to change what teachers are doing, one approach is to foster reflection on their activities. One good way to foster reflection is to help teachers learn more about teaching. That brings me to something that I mentioned earlier. I think one important way we can affect pre-service and in-service instruction is through the idea of teacher researcher discussed in one of these papers. One of the suburbs of Boston has established a newspaper, edited and run by teachers, in which teachers publish articles reflecting about their own classrooms and reviewing blocks of interest to teachers. That is an unusually powerful school system. I think that is the kind of model that researchers or people in universities could use to help teachers increase communication among themselves and encourage reflection on their own teaching. Another example of collaborated research is Shirley Brice Heath's co-authored article with an illiterate adolescent girl who had to drop out of high school. I talked to Heath last year and she apparently is continuing this kind of collaborative work and finds not only is it a wonderful experience

for such a teenage girl but she thinks she is getting very useful data. I should think that researchers could set up some kind of collaborative work with teachers, possibly growing out of an in-service program, that would continue to maintain a connection with the schools.

Whenever the assistant professors at this conference meet, it takes about ten minutes before we get around to discussing tenure and the tenure process. I think tenure is important to include in our reflections on what influences our research and in considering what people are doing with research. This point harkens back to Heath's article, because she found some difficulties in getting the publishers to list the girl as a co-author. I wonder about the extent to which the profession at large would reward people for work they co-authored with teachers? Could they get themselves published in journals that their universities would recognize as being, you know, a full point toward tenure? The kind of reward structures that exist may preclude supporting teachers.

Interpretation of Findings

DURKIN: My comments are a reaction to the concerns expressed by Trika Smith-Burke and Bob Calfee about inner-city children and their problems. They are also a response to a comment made last night about a little learning being a dangerous thing. Sometimes the opposite is true. When I taught inner-city children in Chicago and had as many as 49 black children, I was sufficiently naive as to assume that everybody in first grade was supposed to learn to read. I had very high expectations. I just assumed the kids were going to learn. I further assumed that if they didn't succeed, it was because of the teacher, and so I really worked hard. I never put the

blame on them. If something didn't go right, I just worked a little harder. I didn't know very much about reading, but I was wise enough to know that if one method didn't work, I should try another. So I was eclectic in my approaches and again, because I didn't know very much, I never gave up. I have since analyzed why I was such a good first grade teacher--and I really was good. I think it was because the message to the kids was that they could do well if they tried hard enough. I never gave the impression that failure might be related to something like their dialects. In fact, I didn't know anything about black dialects. The point I am making is that sometimes the more you learn, the more it gets in the way of effort and success. I think now that I wouldn't be nearly as successful in teaching those kids to read as I was when I did it. Sometimes too little learning is not a dangerous thing.

FILLION: I wanted to share a point of information about a large study being conducted in Canada into teacher decision making that may be misdirected. How many times in our own lives can we accurately trace our motives for the decisions that we make? The notion that somehow or other we can peg teachers to find out why they make decisions seems to me to be an arrogant sort of undertaking. Yet that is exactly what we are trying to do.

But I think that theory is really essential. For example, I was as impressed as David Dickinson with the article that Shirley Brice Heath wrote with a student, but note that she didn't just take the ideas off the top of the child's head. She did it with a series of questions that she wanted to address. She was using the situation to address those questions. I think if we go into any situation with questions, we may be able to get them answered. The key

thing may be to ask some good questions before we start in or shortly after we get there.

SQUIRE: I think Arthur Applebee says some important things about developing a hypothesis on how to produce a change before going into the classroom and studying the models that the children have and that the teachers have. As David Pearson pointed out, we can do some dumb things when we just jump in and teach without advance planning. It comes back to Arthur's point about developing a theory about what sort of interventions are useful. If you don't have a theory or don't at least have questions before you start, you are going to have to infer them after you enter the class.

V

DISCUSSION OF TOPIC V:
DEVELOPMENTS IN TECHNOLOGY,
IMPLICATIONS FOR LANGUAGE
AND LITERATURE EDUCATION

Note: This segment of The Seminar focussed on personal interpretations of the authors' divserse experiences in applying technology to aspects of the language arts. Following the papers by Bertram C. Bruce and Larry W. Frase, Johanna DeStefano then extends the discussion by reminding the Seminar that thinking only about the impact of computer technology is short sighted and by speculating on the uses of technology in developing communication competence. Edward J. Farrell then expresses serious misgivings about the computer's future use in education.

DISCUSSION

Recognition of word processing or idea processing on the computer as a new form of language intrigued seminar members who directed much attention to this concept. The ways in which technology was affecting writing, reading, and knowledge generation also concerned discussants.

Computers as Tools

BRUCE: When computers were first talked about as being useful in education, the dominant way of thinking about them was as a new medium. That is, people talked about delivery of information via computer as opposed to delivering it through books or film strips or through speaking. And a number of studies were done to compare the effectiveness of so-called computer-assisted instruction to other forms of delivering instruction. Within computer and education circles, there has been a movement away from that view, toward a more tool-based view of computers. We now view the computer not so much as a medium in which to embody information but as a tool with which to do things. For example, we have classrooms in which word processing is used to help children learn to compose. It is difficult to see a word processor simply as a medium for expressing information.

But even the view of the computers as a tool may be too limited. In many classrooms the computer is being used not just as a tool to do things but as a facility to help develop richer environments for communication. It is really too simple to say that it's only a tool to do a particular task. Rather it is part of a whole system in which it is possible to create an enhanced communication environment.

And there's a final way that I think we might want to think about computers. I believe that soon we'll be talking about computers as another language realm in the same way that we talk about oral language and written language today. As computer facilities are further developed, they will become another way of doing language, not simply a medium for communicating ideas, not simply a tool for processing text, not just a communication environment, but rather another way in which we do language. Computers are fundamentally neither adding machines, nor fancy calculators, nor even fancy typewriters, but they are basically tools that belong within the realm of langauges.

FRASE: I would like to relate some things I have learned, through involvement in software development in the last few years, to the themes and problems emerging in this conference. There are several major issues coming out in the conference. First, how can we educate each other better? And by each other, I mean, how can teachers tell researchers what they ought to be researching and how can researchers tell the teachers what they found out. That breaks down into two specific transfer problems. One is, how do we transfer information and the other is, how do we transfer procedures. Transferring information can be done in traditional ways; for instance, through books. But you, as a teacher, discover something about teaching, a good way to present a concept, for instance, how do you get that procedure effectively and rapidly into the classrooms? Of course, we must also ask whether we actually know anything that's worth teaching anyone else. The basic instructional issue is how can we get control of classroom activities? We heard several people talk about tests and how they influence what goes on in the classroom, so we know that we can achieve control.

Given these three over-riding issues, and the fact that the computer can focus activities in important ways, I'm optimistic about what we might do with computers. I am not sanguine about the status of engineers' understanding computer applications today or what the world of education knows about computer use either. However, I see six or seven ways in which computers can help us. One is through resource sharing. Once you are on a computer network, you can develop software and exchange it instantaneously with people throughout the world.

A second way computers can help is that, by working with other people in different disciplines to develop some way of expressing ideas on a computer, you begin to develop a common language for talking about things. You begin to understand what other persons mean when they say, for example, that "voice" in writing is such and such a thing. Well, how do you get specific about that? Being able to put something on a computer that reflects "voice" defines for the other person what you mean by these concepts you are talking about

The third computer advantage is that it is a communication vehicle. You can talk to everyone else who happens to be on the network, thus raising questions of who is going to be on those networks, who is going to talk to each other, who is going to have computers. That's not a trivial issues.

The fourth computer advantages is in idea testing. I think we ought to have our ideas challenged. If you say, "look, I know what 'voice' is, and here is a program that assesses voice," and here are two passages and they don't differ, but everybody agrees they have different voices, then there's something wrong with they way you have conceptualized the idea. So a computer helps you test your own ideas. And you may find that you don't understand things and thus can't computerize them, except at a very high level.

So I would vote against the premature development of tutorial computer programs to teach complex things to students and rather for the development of moderately high level programs that are tools in the sense that Chip Bruce talked about them.

Another issue is the effect that computer programming will have on our understanding of particular domains. When you begin to program things for writing or for music or even mathematics, you begin to understand what you don't understand about concepts and tasks.

There is also a sense of functionality that comes from using computers. When children use our writing programs, for instance, to analyze what they've written, they begin to realize the computer is really helpful. They are not learning just a bunch of abstract principles, but something that enters into concrete activity. So the issue of functionality that Arthur Applebee mentioned in his comments is important.

The paper I wrote for this conference is an argument that we ought to step back instead of going head-long into writing computer programs that do this and that, and build the conditions that will make the computer eventually very useful in classrooms. I presented not a research agenda in the paper, but an agenda for what we ought to do before we do all our research and applications. Its what people in the industry call "systems engineering."

The people who ought to be in control of computers are the people whose domain is being influenced by the computers. If you are an English teacher, I think you ought to be in control. The way to do that is to lay a good foundation.

Interaction in the Inner City

BRUCE: With respect to the question of helping linguistically and culturally different children. Andee Rubin and I developed a program called QUILL, which is basically a text word and retrieval processor plus tools for communicating, like a message system and a storage system. We have looked at a number of classrooms where the program has been used. One of the first classrooms in which I spent a considerable amount of time observing was an inner-city classroom in Hartford, composed mostly of Spanish-speaking children, Cuban and Puerto Rican, and about one-third black children. This turned out to be one of the most successful classrooms that we had of our first set of six classes. The children were writing a lot and the teacher changed his style of teaching in several positive ways. The success of the program was also reflected in a formal assessment of writing improvement. Since then we have found that the program has done particularly well in a number of inner city and rural classes. In fact, in some of the suburban classrooms, it had done less well, perhaps because other resources were available. There are several reasons why the program was useful. One is that in the classrooms where it worked well, teachers were willing to let children write about what was important in their own lives or in their own cultures. And it was, in many cases, the first time in school that these children had been allowed to send messages to other children in the class. Another reason relates to the presence of what Johanna DeStefano refers to as "interaction," but here it was not so much interaction between the computer and the student as interaction among students in the use of the computer. The students would often compose at the computer in pairs or groups of three, and then talk about their writing, talk about their ideas, using the computer as a tool

to help them see the text and to change it as needed. The process of explaining to one another or trying to justify one way of writing versus another, was probably as valuable as, maybe more valuable than direct interaction with the computer. The computer stimulated face-to-face interaction that had not occurred in many of the classes before then.

Sarah Michaels, Courtney Cazden and I have been looking at a couple of classrooms in Cambridge with Portugese-speaking and other minority groups with respect to those equity issues which are often talked about in terms of city versus suburb or white versus black. But in this case we have been looking at equity within classrooms. About half the kids in these classes are in Chapter I programs and when they leave the classrooms at various times, they often miss out on what is happening with the computer. Once they miss out on a little bit, they tend to fall further and further behind. And so it's exactly the kids who might be the furtherest behind in that situation that are not being helped as much as the others.

Computers and Culture

FRASE: There are two major things that seem to bother Ed Farrell. One is information overload and its dangers, the other is that computers may be injurious to our literary health. The first I don't doubt, it's obviously here.The second I have great doubts about. The first is true and would have been true even without computers. Since the 1930's people have been terrified by the doubling of information in the world every ten years. And where are we now? There is much more information in the world now. An example of overload, right? Not really. In the end, the computer has an off switch. I turn mine off. I am on a news network and I have a filter that filters out

things; that is, filters out topics I am not interested in. Instead of seeing three hundred new items in the morning, I get a few.

I doubt very much whether computers are harming our literary abilities. The use of computers for stylistics and for text retrieval and storage proves their literary value.

LANGER: I find it is rather interesting that until the last ten years or so, sales of trade books had been down and during the last few years, they have been going up again. I find your language and my language sometimes are echoes of the past. If you read a lot of Mary Renault books, such as The Mask of Apollo, about the ancient Greek times, you find she depicts the people who are the bards, the poets and writers of ancient Greece, as extremely concerned that all the beauty of their language and the marvels of their literature are going to be robbed from society because of the beginning of writing. They feared that if you don't memorize and have the beautiful words in your head, you may lose the images and meanings. What I hear now as we worry about the impact of technology on our literary culture, is a harkening back to the fears expressed during the beginning of writing. The concerns then are our concerns now. One of my hopes for the computer is that it is going to be another communication tool that will help people approach knowledge, beauty, ideas, in new ways. Just as we moved from oracy to literacy, perhaps now we will move forward some other form of communication, this time with computer technology as the tool of expression.

CALFEE: Socrates was the one who warned us about these problems to begin with. He said, if the Greek language is put in print by too many

people for too many purposes, it's going to destroy dialogue. And he was right in a sense. Nonetheless, print took over. It's with us, it gives us some things that we can't get without print, it takes some things away if we forget the other bases. I think the same thing is true of computers. I like computers. They weren't around when I was born and so, in a sense, I have grown up with them. Phillip Johnson Laird gave a presentation to my graduate students a couple of weeks ago and was talking about Alan Turning's original thinking through of "what could a computer be." Would it be possible to devise something of the sort that we now take for granted? I looked around the table and I realized most of these kids haven't any idea of what he was talking about because the notion that we could live without these devices is beyond their belief.

You have to be well educated to take advantage of information handling technology. The printed word is one such technology; so is the computer. And it is very easy for us to be mindless with regard to learning these devices. In fact, I would argue that a great deal of the instruction in reading, and I suspect in computing as well, is largely and typically mindless. That is, there's not a thoughtfulness and in that case, we are going to use them in a mindless way.

Because youngsters from non-disadvantaged backgrounds do well on standardized tests, we cannot conclude that they are getting a good education.

Expository writing is a technology in disguise. User-friendly machines are often technologies in disguise. Everything is great until it doesn't work quite the way we were expecting it. I stopped in a classroom at a very elite private school in Monterey. Clint Eastwood and Paul Anka, for example, send their children there. They have plenty of money, they can fire teachers

if they don't like them. The typical child has an I. Q. of 120 or above. So all of the things that we generally think of as problems in some of our public schools have been taken care of. I sat down with a couple of bright young seventh graders and gave them each a passage to read on coconuts in Brazil. In fact, the topic of the passage was the importance of Third World countries using some of their resources to develop resources for export so that they would have money for import. The example was coconuts in Brazil. By the time one of the youngsters was about half-way through a two-page passage, she looked up at me and she said, "I'm not going to be able to remember this stuff," which I thought was interesting monitoring. Not that the writing was bad, but in fact she had no tools to approach the writing and had no way of organizing the information. The next young woman read it all the way through and then reported back to me in a list, the topic sentences. She would probably do better than the first youngers on a test, but in fact she had not comprehended. I see quite a parallel to the computer in both instances. People who have not learned the technology are in fact going to be unable to handle it. And I think that's as true with a computer as it is with expository writing and as it is, for that matter, with somebody who is given an IBM or an old Remington to bang away on.

PURVES: With respect to Farrell's concern about the effects of technology on scholarship, I think of several interesting examples. There happens to be an archivist of the United States, who is responsible for saving government documents and preserving those government documents for future scholars, who sees the major problem in using computers in composing is that we no longer have draft documents. For historians, draft documents

are very important, partly to see how such things as treaties change and how the process of negotiation goes on between people.

Another related problem is that there were a whole series of documents stored in a computer related to Viet Nam, done during the Viet Nam War, that cannot be read now because the program for using that computer file no longer exists. So they don't know how to get into the bloody machine to get the material out.

PURVES: Two weeks ago Miles Myers and I served as Trustees of the Research Foundation of NCTE to review research proposals. I think we studied some seventy-five proposals all told, of which at least, I would say, close to half dealt with computers. And what struck me was that they seemed to be asking all the wrong questions. I think maybe this is just a phenonemon that people who are doing research with computers at this point don't seem to know what questions to ask. I have spent some time thinking about literature and what is happening to it, its role in reading texts, in the reading and writing curriculum, particularly as more functional types of writing are increasingly surfacing in the classrom. It seems okay for little kids to write poems and stories but when you get to be ten, you are not supposed to write material like that.

FRASE: Although many people harbor computer fears, it is often a computer that can solve their problems. For instance, we have something called a source code control system that keeps track of software programming projects. Anytime anyone writes a program and someone modifies it, the control system saves an incapsulated summary of the first version. And so

we may have thirty versions--these are all not there but the last version is. But one can generate any earlier versions from the latest. And we've extended that into our documentation system for re-writing of documents. In fact, we can regenerate any version of text we want. If we had had computers in the 1700's, we would have access to many documents that the archivists are missing.

Think of what you might do with computers if you had a data base with all the famous literary works at your disposal. People who are studying intonations in classical language make heavy use of computers. We are doing some studies on rhythmic patterns of language and different kinds of writing using the computer as an analytic tool. I think that the potential for the use of computers in literature is great.

Providing Diverse Environments

DESTEFANO: I would like to go back to the idea of knowledge and knowledge generation that Ed Farrell brought up, which I think is extremely important. If you tie this back to one view of education, you can think of education as a sort of cultural transmission from one generation to the next generation, a sharing of concepts or knowledges, if you will, or assumptions that get passed on from one generation to another. The English have been challenging this view in their research, often noting the differences in terms of who gained access to what kinds of knowledge. So it is already being discussed that low socio-economic group children end up being exposed to different kinds of knowledge than high socio-economic children. David Pearson raised the issue in terms of language education in saying that what we really ought to be doing is teaching the related forms and functions of language. It

is what I would consider a language-across-the-curriculum kind of position. But then you start thinking about what Joseph Pelton told us at a recent NCRE session that with the knowledge explosion, the cultural transmission model is no longer really going to be adequate and we ultimately may have an informed elite group in this world and a rather uninformed group. So it raises certain questions about what kowledge is important now. We know we need to know something in order to understand things, so you have to deal with that question. But how can we manage and categorize and actually handle these enormous amounts of information that are going to be generated? How much do we need to know to be able to do this? So I think it raises a very provocative series of questions for the education of the future.

HANSEN: I think that computers have an opportunity not only because of their interactive nature but because of the multi environments that they can provide. They offer a wonderful opportunity to move out of the classroom and provide youngsters with many more opportunities for becoming functionally engaged. I really think there is a great future for computers if educators and people interested in language and reasoning activites in classrooms can become involved in planning future education directions with computers.

BRUCE: In the classroom you can pretty much rank the children in terms of their facility with the computer commands from the ones who know the most to those who know the least. When we posed a problem on how to do a certain task with the word processor that they hadn't been doing yet, the children who knew the most said that they would go to the computer itself, they would simply try it, and see what happens. At the next level

down were kids who said well they would go to the computer but that they would use the help facilities. They would let the computer explain how to get the help. The next level down were children who would go to the manual where it explaned in print how to do this. At the next level, children would go to the class experts, the children in the class who were known to be the ones who knew how to use to processor. The next to the bottom level would go to outsiders who were coming in, the researchers who were visiting. And at the lowest level, the kids who know the least about the computer, would go to the teacher.

The Nature of the Medium

TIERNEY: One of the things that I don't think we have addressed, an issue that Ed Farrell raised, is the nature of the medium of the computer. We have been talking about the computer as if it were just a static text, but it's more than that. Farrell was looking at the differences between spoken language, written language, and the interactive language among people via computer. Computers offer the potential of a very dynamic medium, a medium which is a far cry from the electronic workshops and text editing uses to which the computer is now being put. For example, I think one of the major uses of computers to be the interactive electronic exchange, where we have to get used to somebody interrupting us as we go to our next word.

FARRELL: It seems to me that one of the things we really need to ask is whether this medium is different in degree or different in kind from any preceding medium. It is one thing to talk about the shift from a fountain pen to a ball point pen; it is another thing to talk about a shift from a pen over to that screen. And we really haven't sensed the difference as yet.

One of the other things that I didn't mention at all is the whole question of whether computers aid scholarship. Right now, the Library of Congress is going computer at the rate of two works a second. And there are people like Barbara Tuchman who say that scholarship relies on serendipity, on the thumbing through of catalog cards, and that once you become menu specific, you lose a great deal that gives texture to scholarship. We don't know whether this is right or wrong; we just don't know yet.

BRUCE: One of the things that some people in Alaska (e.g., Ron Scollon) argued was that the computer networking creates a different sense of time, not just the lack of interruption, but a less pressing sense of time, the ability to say things in a way that is more compatible with conversational characteristics of the culture. Thus some people find computer networking to be a more effective way of communicating with government agencies than either face to face or written communication. In environments where computer mail has been introduced, people developing specific language styles appropriate to the electronic medium. It is a new form of langauge. When you write a message on a computer, you are not sending a letter like a longhand letter or a typed letter and you are not doing what you do when you talk on the telephone. It is a new form of communication which we are just beginning to understand.

AUDITOR: We are skeptical of new technology and new innovations, so skeptical that we have never adequately changed our curriculum to reflect any of the new technologies. Thus we have a dichotomous way of thinking that television is bad and print is good. Print is culturally derived for those

in this seminar, perhaps, but not for others, and ignoring other media or suggesting that one media will displace another and therefore refusing to work with it to eliminate illiteracy is discouraging. The medium and the message is an old argument, one that really has to be reframed. The notion that information overload is going to become more and more of a problem is a simplistic comment. We have always had information overloads. We will have information overloads forever. People have a threshold beyond which they will not accept information and it is just a matter of what media or what information we tend to take in. For instance, I get junk mail which I just throw out. I don't even look at it; I only have so much time and I portion my time according to my interests.

What I want to find out very simply is how do you get a child who has no sense of a sentence to begin to see writing as communicating ideas? What do you do?

Secondly, what are the goals of writing instruction? What are the goals of reading instruction? Do you know what I see when I go in for my ethnographic observations--teachers churning out written compositions. Once the child is finished with one composition he starts churning out another. Once the prewriting ideas are completed, the child starts writing the composition. Then he edits, and then begins another and another. I see no goals. There is nothing to writing or reading without goals.

Will computers be relegated to a corner in the same way as video tape is now, the same way that the slide projector is, the same way that the film strip projector is? The reason for this is clear. No one has examined the unique capabilities of the medium. No one knows what computers can do, no one knows what is unique about computers that can reinforce writing or

reading. Johanna DeStefano looks at this in a slightly different way, which I think is good and that is, what are the unique features among children that enable us to use the computer to help them with unique and more far-reaching effect.

PURVES: There is research the world over that deals with the question of why so many of the media that were touted as being panaceas for all educational ills sit gathering dust. Remember educational television was going to revolutionize everything. There would be no more teachers in the classrooms, kids were going to watch television. The world was going to be brought to them via television. Well what happened? The teachers are still in the classroom. In Mexico, a recent nationwide study on why television has not taken over in schools found that a major reason for its neglect was that people did not see the need for it or the purpose for the technology. They felt it did nothing for them that they weren't already doing for themselves and for their students. It seems to me that unless the users, that means especially the teachers and superintendents, feel that computers and other kinds of technology are going to help them resolve problems, then undoubtedly the computer will increasingly gather dust. This is what has happened to prior technology and I see no reason to expect that it won't happen in this case unless there is some real sense of its solutary problems.

JOHNSTON: There are school systems in which the computer is used for remedial reading and therefore it appears to teachers and students that the computer is being used by the dummies and the smart kids don't want to mess with them.

PURVES: The computer's main use may well be, as with television and radio, in what is called distance education. This has been particularly effective in New Zealand, where in some ways, correspondence schools seem better than the regular schools. The same thing may be true in Australia, the Ivory Coast, and Alaska.

The discussion of the use of computers in writing and writing instruction raises a number of questions in my mind that I think are not fully dealt with in the research I have read. The computer is a tool for a writer, a super typewriter. But we have already learned that switching from pen and ink to the typewriter did not necessarily affect the quality of what we wrote although it may have changed its nature. Some people have thought that by introducing computers into the classroom students would become better writers. The early results of studies suggest that such is not the case. At the same time, as Marshall McLuhan demonstrated twenty years ago, earlier technologies did indeed affect ways in which we viewed language, and Olson, Scribner and Cole, and Goody have tended to suport that position. These effects are at times subtle, at times slow to come; the change in writing style that resulted from moveable type came about two hundred years after the technology. With the computer such changes may be faster as we tend to hurry more in these times, but can we predict what these changes might be? Will they be stylistic, organizational, or will they be seen in the way we view print and text? Since the text can be infinitely revised will there ever be a definitive edition? Since the computer can speed up writing operations, will this be its main effect? Will people never finish writiing a text? To what extent will programming language and programming style affect the organization of compositions? Will the moveability of pieces of text from document to

document change our conceptions of coherence? How will electronic mail affect our notions of writing? My point is that the affects and influence of a technology should be examined carefully and from many perspectives over a long period of time.

VI

DISCUSSION OF TOPIC VI:

COMBINING PROCESS AND PRODUCT ORIENTATIONS

IN ENGLISH AND READING

Note: The papers presented in this segment of The Seminar by Jane Hansen and Peter Johnston focussed on organizing classroom learning and assessing pupil growth. In reacting, Jerome Harste and P. David Pearson stressed the importance of collaboration between teacher and student and between researcher and teacher.

DISCUSSION

Discussion focused primarily on two issues: the impact of assessment on instruction and the role of the teacher in research.

Recognizing the impact that assessment must inevitably have on instruction, seminar participants expressed grave reservations about external tests designed to satisfy district, state, and national accountability purposes being used in schools to guide instruction. Particularly strong reservations were stated concerning criterion-referenced testing, its compartmentalization of skills, and its incompatibility with process-oriented instruction.

Ways of achieving greater collaboration of teachers and researchers was a second major concern and one that elicited sharp differences of opinion concerning the role of the researcher as a change agent. How to enlist genuine cooperation from teachers and how to tap the reservoir of expertise that teachers possess were major concerns.

PEARSON: I think there are probably three audiences for the deliberations at this seminar. One is ourselves, the people who are doing research, particularly with reference to directing attention to bodies of research that are not informing our thinking and our practice as much as they ought to. I will submit that if you look at the bibliographies that most of us have prepared with our papers, we indicate that a lot of us have tunnel vision even if we don't recognize it.

I think the second audience is the people who are going to do the research for the next ten years, and for this audience I hope our focus is not so much a question of listing things to be researched as helping to clarify the way we think about research in language and literature education and literacy.

The third audience with which so many of us have grappled at this conference are teachers or the teachers of teachers who need to think in more understandable and complex ways about what research in English informs and what it doesn't inform.

Combining Process and Product

HANSEN: When we talk at this seminar about a product approach or a process approach, we are really talking about how to maybe combine the two. What I found out is that combining the two really scares no only us, but principals and teachers. Somehow the impression that people have of a classroom which emphasizes process instruction is that it is characterized by mayhem, chaos, disorganization or unorganization with children walking all over the place. Principals get nervous when the teachers in their schools talk more or teach more about the process of learning. One of the things we have learned in the particular research project on which I work is that the teachers who are the most organized and the most structured and who have the best management skills, are the ones who can change most easily and most successfully into teachers who emphasize process. Other teachers really do end up with a situation that falls apart. One of the teachers in the school who changed first and most radically was the one who had the classroom that ran the most smoothly. Everything was always in place. Yet she considered changing. She thought about how she might teach reading differently, and came to school one day and announced to her class that they were going to do things differently from then on. She turned the whole reading program inside out, upside down. She always knew that her class was with her. She didn't have to worry about whether or not it was going to fall apart. She

knew that as children worked out this new system, they would go along with her and work together and make it work.

During the last year and a half, the teachers themselves have started to reflect on this issue of organization and structure and control and how it relates to what they have always been talking about in teaching reading and teaching writing. And when the teacher I am describing wrote about changing her teaching of reading and writing, she wrote about management, particularly she wrote about the way she's changing the way she teaches science. She first changed the way she taught writing and then the way she taught reading. After a year she wrote about how she has changed the way she changed the way she teaches science.

> "I feel most comfortable," she writes, "with my class when their desks are 142 centimeters apart and when they only get out of their seats in response to an alarm signialling an emergency evacuation. However, this type of classroom atmosphere is not the ideal environment for making discoveries. There must be movement, chatting, group work. And so I forged ahead paying no attention to what I was afraid might happen."

As I think about her comments here, it was particularly interesting in a couple of ways for the other teachers, who found that this person who had been teaching without the desks 142 centimeters apart for at least a year and a half, was still nervous about what she was doing. She could change successfully, but she was still struggling with it. Change is a slow process.

Another thing that I wanted to mention relates to her use of the word "I." She's the one who has been thinking about this and deciding what it is that she wants to do next, if she wants to do anything next, and if she wants to make any other changes. She wrote "so I forged ahead." No one told her that she had to keep changing. No one said you had to keep doing more things. How important it is for the teachers to make these decisions themselves,

to decide how much they want to change, when they want to change and how fast they want to change. Because only then will they stay on top of it. They need to be in control so that it doesn't fall apart. But as one of our teachers wrote, the control need not to be of the children but of the teacher's own control of the search for new ways of teaching.

JOHNSTON: Alan Purves mentioned to me earlier that I didn't deal with the gatekeeping function of testing. That was an intentional omission. I dealt with the instructional function of assessment. People who deal with the gatekeeping side of assessment need to be quite explicit about using it for gatekeeping.

Recently I was asked to consult with the Michigan State Reading Association. They were involved with trying to construct a statewide assessment device for reading and they asked me questions that were uncomfortable for me. They said, what should we assess? And I said what is the purpose of this test? And they replied, "For accountability purposes." This was a learning experience for me.

We know that whatever way we set up the testing it will follow us into the classroom. If we want to test whether the children will read as well as they can, we can set out in classrooms all sorts of choices for the children to make from well displayed books and then assess the collective amount of time they spend actually reading different titles. This could give us a pretty fair summation of the quality of a reading program. But an approach of this kind does not seem possible. It appears that the goal that is most important to use in reading instruction can't be tested; other things can and thus influence instructional practice which becomes systematically biased against the classroom.

This assessment business in education is a very ego-involving business, a very personal business because with an accountability system, you can flatter people's egos in no time flat. In tutoring some adults, I learned some interesting things about assessment. Over an extended period of time in a clinic one man developed from roughly a second-grade reading level to about an 8th grade level, and then he stopped developing. In the clinic he kept doing all the things that he had been doing but he didn't improve for two semesters. Then his motivations started to surface. I learned that he realized that if he became literate and he was approaching that stage, he would have to take on enormous responsibility which he has never had to deal with before. There were other reasons too. For persons out of work and basically stuck at home all the time, contact two days a week with a female tutor is not to be given up easily. And the critical reason which took a long time to come out was that if at 45 he became literate, he reasoned that he could always have become literate. He had to face what might have been and he couldn't do it.

HANSEN: Part of what David Pearson said reminded me of something that Janet Emig has written about writing instruction. She said two things have to happen if you are going to change the way you teach writing. "First of all it involves a change in the way you think and secondly involves the courage to make the change."

JOHNSTON: Micromputers have the possibility of supplying us with an awful lot of process information and I have been thinking about the concerns we have expresseed but I feel that there is still one catch that has to be overcome. It doesn't matter how good the information you give the teacher;

the teachers still have to own the information. They have to own it before they can use it. And you can't just give it to them and see what they do with it. They have to be able to identify process data with the education of their kids.

PURVES: I agree with everything those people said. I think that Jerry Harste's comments on curriculum need to be amplified. In my work we found a useful way of thinking about it by identifying something called "the intended curriculum," the syllabus, and contrasting it with the "implemented curriculum" which is what teachers actually teach and with the "attained curriculum," which students learn. We find an interesting gap or breakdown between intention and implementation. I see a potential danger in switching from a focus on "product" to a focus on "process" in that in the asessment business you will get process people breaking the process down into bits and pieces and fragmenting it just as much as the "product" was fragmented.

I do agree with David that infiltration is probably better than confrontation and I can cite one major gain in the number of years that I've been working in and around testing. Twenty years ago if you were to measure a student's performance in writing, you would give them a standardized multiple choice test on grammar. Now, with the large state assessments, and the university entrance and placement tests, we find between one and two million kids per year being asked to write at least one composition, granted under controlled conditions, granted that it's an impromptu, granted all the faults, at least they are being asked to write something and that writing is being judged by human beings. It has taken twenty years to get that far. And it has been done in spite of the fact that it costs about 20 times as much to do it this

way than use a grammar test. The point is that the field has generated enough strength to force the testing industry, the state agencies and the like to make this switch. The next step is to try and work with reading.

External and Internal Tests

CALFEE: Forty years or more ago when I was going to school, I knew what testing was all about. It happened mostly on Friday. We had to take out a pencil and paper and had to put our books away. We had a general idea of what the test was going to be about. We got immediate feedback usually on Monday, and it was very much part of a local system. It made sense and had coherence; any comments about advances in assessment, I think, are usefully viewed against where testing originally came from. I have taken this basic notion and expanded it in a draft document orginally titled "The Schizophrenia of Testing" but now title "Two Faces of Testing." In the analysis, I contrast the characteristics of tests or assessments that ought to be used for internal classroom purposes and those that are driven by notions of accountability at the district, state, or federal levels. And in virtually every dimension that I can find, they are a bad match to one another--a finding which is not problematic until the one test begins to be used for the purposes for which the other test is better suited.

I have some sense that our external tests could be improved much over what they presently are, and I again would go back historically and look at the tests that were used for students and even more the tests that were used for teachers fifty years ago. They were more demanding but they are far more thoughtful and illuminating even in a multiple choice format. And I say all this to reinforce David Pearson's notions. I think the greatest disaster

that we see today are the so-called criterion-reference tests which have become curriculum embedded and are used increasingly by teachers as virtually the sole means of assessment, which forces attention to subordinate learnings and subsets of information until it becomes hash. Then these bits are put into formats with which youngsters are not familiar and about which they are not given any insight. It is a major disaster not only because it's bad but because it covers its badness with apparent time on task in learning in a system which keeps teachers and students quite satisfied with what's going on.

Limitations and Teaching Effectiveness Research

MYERS: These last papers and the comments on them pick up on the themes that were in the teacher effectiveness papers but do it quite differently. For example, in the teacher effectiveness papers, I could click off one right after the other the various kinds of bureaucratic forms that had been used: the five paragraph essay, the seven step lesson plan---all used as evaluation. Now these last papers suddenly direct attention to teachers individually in their room, even talking about what teachers individually might think about doing. Teaching now looks more complicated than the seven step plan. And it strikes me that one of the things that all researchers need to think about is the environmental impact of any idea that we might propose. We might ask ourselves whether we understand the ecology of schools and classes well enough to recommend that anybody actually do anything with our information. We are back to the ideas that Judith Langer and Arthur Applebee raised on the very first day. I don't think they were saying that educational research has nothing to do with classrooms. Rather

they were saying that we need to be very careful about assuming that what we know teachers need in classrooms.

In schools, instructional devices have a symbolic importance which go beyond questions of whether a device is "true" or "works." Having been in similar situations, I know that from their point of view it might have been a major advance forward just to have a writing sample collected in writing assessments. The sampling of writing was a symbolic statement that writing is something that is worth doing. The fact that a topic used in assessment may or may not adequately assess writing is interesting. Nevertheless, the act of collecting writing samples in an assessment constitutes a statement of value and principle that has some positive effects. In other words, the ecology of the classrooms includes these symbolic values which are ignored in teacher effectiveness research.

The problems of context and classroom cultures, it seems to me, keep bringing us back to the question of professionalizing teachers. As you start narrowing your focus to the individual teacher and start saying assessment should be a process study in the classroom, you start to talk about professionalizing teachers. Teachers become researchers learning in their room. Pearson started to do this, but I was disappointed. His words were that teachers must want to try something new. As soon as I hear a statement of this kind I back off because I don't want somebody coming into my class with the assumption that I must want to try something new. I want us to have a much more interactive relationships.

Some of these projects seem to start with an assumption that "we" can't communicate to teachers. Teachers probably don't have it, but "we" hope they get will better. This attitude, whether explicitly stated or not

deprofessionalizes teachers. If the things we are going to study about language and learning are to mean something in school, then we must have some kind of clear vision of a professionalization project for teachers. In addition, it might mean that each one of us would have to look at the teacher preparation programs in our institutions. How many teacher preparation programs are simply used to provide jobs for graduate students in the degree programs? How many of them are used to push people through in half a year? How many send teachers out to the field and never keep track of where they are or pull them back or have any continuing relation with them whatsoever? How many of us are in institutions where preparing teachers is the least important thing we do--compared with providing administrative credentials, Ph.Ds, and so forth. My point is that if these institutions want to improve schools, there are a whole lot of things these institutions and their researchers might do back home, in their own backyard.

Researcher as Change Agent

PEARSON: I do not mean to imply with my comments that teachers are satisfied with where they are. I was thinking of an implicit rather than an explicit public sort of portrayal of teachers. What I was thinking of is that a person does not move toward change unless there is some kind of stimulus. I don't know what other reason causes you to volunteer to participate in a project. I am saying that teachers have to want to change and I say that because of my complete lack of success in working with anyone that didn't volunteer. All I know is that if teachers don't volunteer, they resent your being in the classroom or your taking up their time in any way, shape, and form. I live in mortal fear of having to do a talk to a group of high school teachers who don't want to be there and listen.

To have an affect, a project must become the teacher's project. They have to decide where it's going to go, and whether or not it's worth while for another year or another six months. You cannot legislate it or demand it. I'm not even sure you can persuade teachers. But just because you have the ownership doesn't mean that you necessarily have to do all the work. I think one of the ways that you can help teachers is by doing some administrative tasks that they don't have the time to do. Another way you can help teachers is by acting as a sort of kind of messenger. You can bring things to them that they have requested that they want to know about. You can be a facilitator and even once in a while a gopher in those projects.

HARSTE: David, I think your attitude is wrong. Your notion of collaboration is that you are bringing teachers things to use rather than really working cooperatively toward a mutual goal. I think the reason the Graves-Hansen project worked is because there was a real working together of both teachers and the researchers to explore how to set up a more conducive language environment. There was a common set of goals. If we start thinking that "collaboration" means "withholding information," and letting teachers guess what I know then we don't really have collegial relationships. I see this issue as a real problem in the profession today. That is why I call for practical theory. I am still bothered by our earlier discussion with respect to Kucer's paper that we have to be careful taking theory to practice. I think that is only true because we do theory one place and practice another. What we need is a complete change of perspective if we are really to develop practical theories for language in use. The problem we have had of moving theory to practice is a problem of our perspective. I think we have to change

that perspective. We have to go into classrooms for the purpose of developing a practical theory of instruction. That calls for a different attitude. I think we have to give up our outsider view of improving instruction. We have to become insiders and stop thinking we are above it all. The thing I liked about the Johnston and Hansen papers was that they reflect a major change in attitude about organizing for instruction and evaluating instruction that is participant driven.

MYERS: A major question is the change agent here. Too many researchers go into the schools and see themselves as the change agents. They even put this label on themselves. Now suppose we don't think about going from research to practice, but we think about going from research to teachers and then we have the teachers see how the research might apply in their classroom. The problem today, of course, is that the researcher and the teacher rarely interact. But there is a way in which they can collaborately work.

But I saw Pearson commenting on research as something which is delivered and disseminated, taking the more traditional view of what research does--bring information to the room. If rather we could think of the situation between the researcher and the teachers as being similar to the situation we want betwen teachers and students, then the relationship could be more interactive. The researchers could be in a position of saying that they wanted to ask questions about what teachers were doing, why they were doing it that way, and how they might have other ways to do it.

One of the first things I am going to do when I return is look at whether we ever keep track of the student teachers who leave our institutions, whether

we have a continuing university relationship, whether we in fact have our own student teachers doing classroom research projects before we even give them a credential? Do we give them some experience doing these little process studies in their rooms as student teachers? In other words, we need to look in our own backyards first before going out to the school.

MYERS: I don't want to be difficult with David because I think his inclinations are good and I think his spirit is right. I simply thought some of his language was off, and I took those pieces that I thought were off--where he called himself the change agent, where he's going out to the school and show them how to do it. Shall I illustrate it with doing it differently?

I would have a situation in which I would invite the teachers to the university and I would ask them to take me through some lessons they have that worked and I would do the lessons. And I would, in the course of five weeks or so of looking at teachers who seem to be having success, begin to talk about what threads seem to be running through what they were doing. I think I would, after that time, say that instead of going out to the school as a change agent, I would suggest I talk to the principal and ask him to give the teacher a period of released time next year or some little support because this teacher and I want to do a study in the school. I am familiar now with what this teacher does and a little bit about how his lessons work. Together, the two of us, want to take a look at one or two students in the room.

David is in the position to initiate better than most because of the fact that, for strange reasons, the university happens to be neutral ground for most public school people. It is not seen as a battleground. So it provides a somewhat quieter atmosphere, a little more space, a place to sit and talk

that is quiet, without bells or loudspeakers. It makes a good beginning place for sitting down, talking and finding out how things work. After a period of acquaintance of this kind, the teacher and researcher are ready to go back into the room.

HANSEN: I support David on this one. We are fooling ourselves if we think we are going to go into a school and do a research project and are not the change agents. I mean we are. What we can do is set projects up differently. We can set up language communications, but just because we went to a school to do a research project we are the change agents.

PEARSON: What has happened in the projects that I have been involved in is that whatever attitude you go in with, you are still perceived as the person who wants change. You are an authority figure and teachers perceive you as the outsider. As a matter of fact, even when we began to tell teachers that we were not going to fill that role, they still expect it. When we meet with teachers individually, they say, "Tell me what you want me to do." That is their attitude. And it is really hard to say "Tell me what you do." "I teach reading," they say, we start talking about what it is they really do and then what is it that they would like to know. Is there anything you want to know about? One approach that we try is to tell them about what we know about doing if we wish children to learn. And so we tell them what we know about prior knowledge, reading-writing relationships, and discussion, and we present a kind of menu. They then select the projects which interest them, the concepts are modified and worked out together, and we try very hard to work collaboratively. But even after two and a half years, we are "still the

experts," and that position of authority comes not from direct authority but from the perception that we have more knowledge than they do. Even when you try to fight it, you can't get away from it. It is part of the reality of the situation.

FLOOD: We struggled with how not to be the authority, but the perception is there in teachers. And being in that authority situation probably gives us some things. For three years now I have tried, As David says, to push back that attitude and I haven't really thought about what role we, as authorities, are able to serve. At the same time when the teachers came to our graduate student seminar, one thing they stressed was that they appreciated being treated by the professors as colleagues.

WITTROCK: One outcome of the conference should be some constructive suggestions about improving assessment and evaluation. We have heard excellent comments from Peter Johnston about problems with assessment and evaluation procedures. I agree with him by and large. We have also heard at this conference some general ideas about producing change in evaluation and assessment practices. We now need suggestions at a concrete level to begin the change process that Peter discussed. We should implement process evaluation, for example. We need to discuss many of the current practices of standardized testing, which David and Bob mentioned. How do we begin to make these improvements in assessment and evaluation? Where do we start?

FRASE: I have been trying to think of some analogies in the computer area and it seems to me that there may be some potential in expert knowledge

engineering in all of this. That is, suppose we went into a classroom and instead of taking the knowledge we have, we went with our hat in our hands, so to speak, like they do in medicine. We could work with the teacher who is known to be an expert in teaching something and try to understand that process well enough to build a model to use in automating part of that teaching process. Doctors work with psychologists in building expert systems in this way. The doctors learn a lot and the psychologists learn even more. They usually end up with something that is not completely satisfactory to either side, but they certainly learn a lot and the stuff works pretty well too. That is one way of learning something about the subject matter from trying to use computers.

PURVES: Eight years ago in New Zealand the secondary school curriculum was being changed, and the change involved every English teacher in the country. In a small country you can do this. The problem they faced was the problem of having to deal with their various publics and an evaluation system, with the school certificate and the university entrance exam and these didn't fit this new curriculum. What we did when I was visiting there was to call a conference that brought together the people involved in developing that curriculum, the major employers of the students who were to go through that curriculum, and some of the people at the next level of education who were another receiving group. And we discussed what it was that they wanted to know about the changes in order to make decisions and one thing they didn't want to know was their test scores. It very quickly emerged that test scores were not useful information to them. So we proceeded over several days to develop a strategy to provide the kind of information to these constituent

groups that they would find useful. It has taken a while and they are still at work on it. I think it is possible to do if you bring together the right groups of people and engage them in dialogue to find out what it is they really want to know about the student. It can be done.

GUTHRIE: There has been a lot of talk about research and practice in which practice means being a teacher in a classroom. But there is also the practice of the state education department that may be important in this kind of situation. The educational measurement (NCME) journal has a special issue coming out in the summer entitled "Testing a Vehicle for Educational Reform," and there are articles by three state representatives of departments of education. In responding from a curriculum viewpoint, my message is that there is a mismatch between types of tests and types of decisions that tests are used for that is widespread. For instance, using criterion reference tests to set cirriculum goals. It is the process measures that teachers need to make instructional kinds of decisions.

The question is how do we bring this message to people? I think that has to come at a policy level. And the way it comes at a policy level is by us telling the story of what literacy and language learning means more widely than we ever dared to do. In other words, we have to convince state departments of education and those who are responsible for policy. Teachers often have so very few degrees of freedom about their curriculum. I think we have to find ways to tell the message of the complexities of literacy broadly so that we can be heard by policy makers and they can incorporate some alternatives into their planning. This is a big set of issues, I realize, but I want to go on record saying we should address it.

What Collaboration Means

FARRELL: My comment goes back to discusssion between David and Miles in which some others joined in. One highlight it seems to me is the discussion we have had on how to collaborate and what collaboration means. And that's been on my mind a fair amount. One dimension of this that might be useful to think through is recognizing that collaboration between professors and teachers has at least two inherent problems to it. One is the mantle that we wear when we come into the school. It is a mantle that is on us by virtue on our being of the perceived academic ladder. And it is awfully hard to get rid of that mantle. You just can't cast it aside easily. And I think in part, when you are talking with teachers as colleagues, you are only partly putting the mantel aside.

Miles Myers, I think, is right. We don't do very much in teacher training institutions to join with our folks as colleagues. We do that better at the graduate school and at the Ph.D. level perhaps. Teachers when they leave our institution, in spite of some efforts to the contrary, don't see themselves and ourselves as teacher-colleagues. I don't know how to solve that problem but it poses one set of issues.

Another set of issues has to do with knowledge, the kind of knowledge one brings into the situation. I'm old fashined. I am a professor because I presumably have something to profess. I do have knowledge, and I think I have some knowledge that will help in schooling. So do teachers have knowledge. They have lots of experiential knowledge, and many of them have thought about what they are doing. One of the challenging problems is how to get past the mantle stage to the point where we can find out what each other knows.

I would just add a personal caution. Don't discount knowledge you have in the process of seeking collaboration. When you do, you do a disservice to yourself and perpetuate an act of dishonesty. I have gone to schools because I know some things and want to learn some things. And it is in the process of trying to find out what's what that some barriers can be knocked down and some genuine collaboration can be achieved. It takes time, Lord knows, and patience on everybody's part. We live in different communities. It's "getting to know you" that is essential.

VII

CONCLUDING OBSERVATIONS

BY SEMINAR PARTICIPANTS

Note: Two conference commentators, Merlin Wittrock and John Gutherie, summarized their impressions of The Seminar at the final session. Participants were then invited to comment on these concluding statements or to add additional points as they wished. Although most responsed with appreciation to the papers by the two conference commentators, individuals tended to focus on what had not been said or on what needed reiteration.

DISCUSSION

Concerns to be Remembered

SQUIRE: Given what those at this seminar and other conferences are saying about assessment, perhaps one thing NCTE or IRA ought to be doing is giving careful thought to informing major political movers about the problem and urging them to talk seriously about what can be done about the assessment problem. Some kind of action has to be taken. We have been wringing our hands for too long. It is crystal clear that we have developed assessment practices that are detrimental to learning. Maybe AERA acting as a total association can do something. Perhaps NCRE can take action. It is a small organization and it is thus able to move with support from other groups.

HARTSE: Both summaries were absolutely excellent, but the thing that I didn't hear emphasized was curriculum. I see this focus as extremely important. As I watch instruction, I see behavior management and assertive discipline usurping the literacy curriculum. The goal seems to be discipline rather than learning. Much activity has nothing to do with literacy. Literacy becomes an underriding current, not the focus. As language educators, we have to become concerned that schools are places for learning and that our literacy curriculum focuses on learning.

Similarly, we have defined instruction as "direct instruction" and this by the teacher in charge. There is a lot of direct learning that takes place when kids watch other kids in the kinds of programs that Hansen was talking about.

I think we have to help people re-think what we mean by direct instruction and make sure that curriculum does not fall through the cracks during the next decade as it seems to have done so in this one.

PURVES: I wanted to remind us that as a group of researchers tend we to be, and most of the papers here have tended to be, remarkably ethnocentric. I have had the fortune over the past decade to become aware of absolutely superb research in such countries as Singapore and Sweden. I think some of the best writing research in the world is going on in Sweden right now conducted by Ebbe Lindell at Lindell Malmo. I, also, see important research in reading in Hungary and Italy and in writing in Finland. We need to reach beyond our boundaries as we are increasingly going to be dealing with large, migratory, populations. I am not calling them migrant; they are migratory because they move back and forth between nations. I would urge us all to be aware of cross-national and non-English language research. I have urged the NCTE to drop the "National," but it won't. I think IRA was the only sensible organization in this whole field in going international at the beginning.

HARSTE: I offer several cautionary notes. We do not have a good theory of learning that can account for the social as well as the cognitive dimensions of learning. One of the reasons we are confused about instruction is that we are only beginning to rethink literacy; i.e., what it means to write and to read. We really have only just begun to get some clues as to how people learn to do those things. I don't think we will have strong instructional research until we have much fuller understandings of learning. I hope the conference won't end on the notion that we are settled on how people learn

to read and write just because we are ready to study how teachers operate in the classroom.

The second caution would be that when we do turn to the issues of instruction, we can start from two different premises almost simultaneously. One is that all teaching, whoever does it and however it is done, is a contribution to the larger process of learning. Once we have a fuller theory of learning, we will be able to see this clearly. Secondly, teaching is an expression of values all the time, always. Values are not to be feared, but to be reckoned with and understood. When we can operate with both those ideas simultaneously, we may get somewhere.

DICKINSON: I wanted to add one thing on the issue of change in schools and how it is happening in classrooms. I think it is important for evaluating what is going on in the education of teachers. This has not really come out. What kind of assessment courses are student teachers required to take? What kind of placements do student teachers have? It is easy to talk about changing the schools and changing policymakers, but we need to look at changes in ourselves, at what is going on in our own institutions also.

FILLION: I think it is essential in order to go forward in our research to consider our own epistomology; that is, thinking through what really constitutes good evidence or should constitute good evidence for believing that a child's communicative competence is either increasing or is adequate. I don't think these are defined terms, and until we define them, we can't adquately address a lot of our own research, nor can we address the assessment instruments that are being used in the schools.

I think we need to consider what constitutes good reasons for believing that a school is doing a good job with language education. I don't think we have defined that. Terms are still too loose. I think we need to consider what constitutes a good reason for believing that a particular teaching approach has a positive influence on language development. Our terms slide here. It is one of those things that we understand but don't clarify.

And I would also support what John Guthrie is talking about, especially the reminder that none of what we do is socially neutral. No research is socially neutral. And we have been talking about it a lot as if it were.

It is interesting to compare different discussions of research and teaching. We are a different group from those at Dartmouth, where the key terms were such things as experience, a term that hasn't floated to the surface often here and another was effect on life development or human development, again one that has not floated to the surface. We have been very concerned here with micro considerations. And I think we have to realize that just as the atomic scientists experimenting in Germany could not disclaim responsiblility for what subsequently happened with their work, we are not going to be able to disclaim responsibility if, in fact, the schools fail to function to hold society together. If we are mucking around in micro matters and the macro goes to hell, we bear some of that responsiblity.

PEARSON: My most vivid impression is how fortunate I am to have colleagues like those of you assembled here to address tough issues. Within a indeterminate domain of scholarship. With such candor, grit, and passion.

And passion is especially important. There can be no true learning without an "edge" of passion in the pursuit. In retrospect, it pleases me that

there was passion in Jerry Harste's kneejerk (I think that means reflexive) reaction to my choice of words (although I find a pleasurable irony that such a comment came from the lips of one who contantly reminds me that WORDS have no regular reality). There was passion also in Miles Myers attempt to make me grapple with my stance toward teachers, in Jane Hansen's description of her struggle with Phyllis Kinzie, in Peter Johnston's reaching his "optimal" level of literacy, in Brian Fillion's and Johanna DeStefano's concern for the hard to teach, in Ed Farrell's yearning for a simpler more genuine time, in Alan Purves's insistence that we move from processes to activities, in Bob Calfee' profession of his intent to profess, and in all the papers and responses that you permitted me to be a part of these last two days. And the passion must remain if we are to move from reflection to advocacy to political action. The passion must remain if we are to move our ideas from the pages of the manuscript to the classrooms of America, where the real drama of educational policy is played out every day.

TIERNEY: My sense is that John Guthrie is suggesting that once we have applied ethnomethodology to probe certain educational issues that certain salient issues should be examined using a traditional research approach consistent with positivist thinking. Ethnomethodologically-based findings should not be held accountable to positivist standards which have the potential to require systematization and simplification of variables in ways which are likely to distort or unbalance how variables are configured in natural settings. Besides, many classroom features are too pervasive to try even to delineate as simple factors outside the thick descriptions ethnography supports. T. Rogers (1985) addressed such a problem in her efforts to systematically study functionality as it applies to teaching reading comprehension.

GUTHRIE: The point is not that the full knowledge base, the full propositional structure, coming out of the ethnographic paradigm could be assessed experimentally, but that you could have some important tests that you could conduct. Failure to confirm experimentally an ethnographic perspective or structure that you have written for a system should raise questions about both the nature of the experiment and possibly about the nature ethnography you have drawn up. Confirmations should, in fact, be affirming for both. Not that you can fully verify either across the two modes, but that they are complementary systems.

Relating Teaching and Research

LAROCQUE: It seems to me that the following paradigm, which I have developed over a number of years, serves well the purpose of analyzing the interactions of the teaching act. It has been adapted from Lee J. Cronbach[1], and has been altered by suggestions of a colleague, Len Froyen, educational psychologist, University of Northern Iowa. The paradigm helps the user think about teaching in a way that includes the main components of teaching as well as the developmental and decentralizing concepts of Piaget.

Paradigm for Analyzing the Teaching Act and for Research on Teaching[1]

1 Subject matter of this nature, in this amount,* for this purpose,

2 with motivational activities and methodology of these types,

3 in this situation of setting, and

4 with a teacher with this disposition, this background, and these qualities and attitudes

5 produces these patterns of affective and cognitive learning

6 in students at this level of development and maturity,

7 with this kind of experience** and

8 with this kind of background and learning style.***

*Includes both content and time allotted for study
**Includes both reading experience and life experience
***Includes physical and psychological health, socio-economic and cultural background

[1]This paradigm and its discussion is modified from an article that appeared in the Iowa ASCD Journal, Spring, 1981. The paradigm is adapted from Lee J. Cronbach, "The Logic of Experiments of Discovery" (Stanford University, 1965), page 2, (mimeographed)

Let me illustrate how the paradigm is used. Let us suppose we are teaching Romeo and Juliet.

Subject matter of this nature	Shakespeare's Romeo and Juliet
Subject matter in this amount	Play is cut to main scenes, i.e., feud scene, ball scene, balcony scene, killing of Mercutio and Tybalt, marriage night, and all of last act. Teacher tells what happens between these scenes, and study of play lasts two weeks or less
For this purpose	To have students enjoy Shakespeare
Motivation	Newspaper article of young love opposed by parents--discussion of times when parents disapproved of teen's friends, etc.
Methodology	No assignments in Shakespeare out of class (out-of-class work can be guided individualized reading); teacher first reads aloud to students; teacher comments on language, asks questions, etc. Students prepare some of the retained scenes and read. Records of balcony scene and tomb scene are used with no reading of them

	beforehand. Students read one scene in groups. Although all reading is done in class, there is a variety of methods of reading used. Zefferelli film is culminating activity.
In this situation or setting	The school encourages teachers to be creative and individually responsible for classes; the setting is a pleasant classroom with lots of space for displays of Shakespearean material; and the class is the 3rd period, not first period in the morning, last period in the day, or near the lunch period.
With a teacher with this disposition, this background and these qualities and attitudes	The teacher is intelligent, is healthy, likes Shakespeare and students, wants all all students to succeed to a higher level than when they arrived in her/his class, is flexible, is interested in students' opinions and reactions, can individualize instruction.
Produces a high level of cognitive and affective response in 90% of the students	Students can answer cognitive questions about Romeo and Juliet and Shakespeare. They also express liking for methods used to teach the play. Values, feelings, attitudes are generally positive.

In students at this level of development and maturity	These ninth graders are of average but heterogeneous intelligence; they are not mature for their age and they read between 6th and 12th grade levels.
With this kind of experience and interests	They like to read and read a fair amount of adolescent literature and some popular adult novels; they prefer adventure and romance. They have traveled in U. S. but not extensively and have had small-city types of experiences. Often interested in sports and camping.
With this kind of background	Class is predominately middle class, with professional, blue collar, and white collar parents. Few students have attended plays in big cities; few have attended museums and art galleries; few have come from homes where the New York Times. New Yorker, etc., are read. Physical health of students is generally good with a number going through life crises. Students are great movie-goers, record-buyers, and video watchers.

Although each of the items of the paradigm could be more fully developed than has been done, the above outline gives one an idea of how the paradigm can be filled in. It is my contention that if you change any of the above items in the paradigm, you will change line 5--"produce these patterns of affective and cognitive learning." In other words, any change in the paradigm, changes the results of cognitive and affective learning. For example, if you change the first line's item "in this amount" from a cut version of Romeo and Juliet to the full, uncut play, I believe you will change the kind of affective and cognitive response you will get from the students who are characterized in the last three lines of the paradigm. If you ask these kinds of students to read the play at home, you will also get lower cognition and affective patterns of response.

In the same fashion, if the students' level of development changes, the teacher will have to make adjustments, perhaps in methodology, in order to keep the level of cognitive and affective response high. One such change might be students with lower reading ability. In this case, the change in methodology might be to read Marchette Chute's prose tale of Romeo and Juliet (in Chute's Stories from Shakespeare) before the students actually look at the Shakespearean text.

No matter what the problem, the model aids us in seeing where the difficulty lies and where changes are needed in our teaching. If we have a behavioral objective which students can't meet (line 5) and we think it is achievable by the students described in lines 6-8, then we much check to see if the items in lines 1-3 are suitable for the kinds of students depicted in lines 6-8; we also need to ascertain how line 4--the kind of person we as teachers are--is interacting with the items in lines 1-3 and 6-8.

Teaching is so complex that to depend on panaceas proffered by partisans, e.g., team teaching, elective courses, using the inductive method, etc., is futile. Because of the intricacy of teaching, one has to look not to panaceas but to the interactions between and among the many factors. This, the paradigm enables us to do; in fact, it may lead the way to a more effective method of assessing teaching through analysis of the teaching act itself.

Relating to Larger Concerns

DESTAFANO: I would like to underscore both what Alan Purves and Bryan Fillion said. There is a strong sense of carrying coals to Newcastle in research. I suggest that you become familiar with Language and Languaeg Behavior Abstracts, LLBA. It is a wonderful set of abstracts from languaeg journals throughout the entire world. If you want to keep up with the kind of research that is going on in Italy, Hungary, and places like that. It is not educationally oriented particularly, it is linguistically oriented.

I also strongly agree with a great deal of what Bryant Fillion said about our research not taking place in a vacuum. We always are a part of a larger social and political environment. On the other hand, what David Pearson said about passion, on the other hand, to be dispassionate and to be as objective as we possibly can. So perhaps, it is a continuum, certainly it is a razor's edge where if we fall over on the side of too much passion at certain times, what we are going to do is become advocates rather than researchers. Sometimes we need to be advocates, yet we must always be aware when we are doing that, as opposed to when are are "doing our research" and trying to be as dispassionate and as objective as possible. Sometimes we have to be partisan, sometimes we have to be objective. I think that that's something that we need to maintain.

SQUIRE: I hope the people at this seminar will be both objective and passionate about some of these ideas because I agree with David Pearson that objectivity doesn't get translated without a little passion.

I also want to say that even though IRA and NCTE have done an excellent job over the years of bringing together research and reseachers from English-speaking countries, what Allan and Johanna are suggesting is that there may be an additional responsibility with respect to research in the native tongue in all countries. If there is magnificent research in countries like Sweden on language learning and composing some American researchers should get us together with the Swedish researchers who are doing it and interpret it for all of us. Perhaps seeing that this is done is a function that NCRE can take on.

FRASE: Bob Gundlach said that we need a better general theory to pull things together. I think that is exactly what is wrong with the psychology of learning and teaching.

The last thing in the world we need is to have our graduate students and colleagues going out guilding general theories (to encompass all our findings) if we want to affect education.

The focus for research should be a learning or teaaching act--one that can be described, shared, computerized or whatever, but one that has an impact on what someone else might do, not just think. The problem with theory is that one has to step away from action as one goes higher and higer up the abstraction ladder in order to gather more and more of other peoples' work under one's own theoretical umbrella. I suppose the ultimate theory, bringing together all our works would be a theory of the origin and evolution

of the universe. Even if it were a right theory it would not help teachers. And that is why teachers do not use our theories.

As we get really good at understanding knowledge and procedures used in different domains, I suspect that general theories will drop aside and become either historical curiosities or just light reading to go along with the real work of improving technology.

FILLION: The connection between research and instruction in language education is neither simple nor direct. Research yields various kinds of information that are most likely to be interpreted and used, if at all, by other researchers, educational practitioners, educational policy-makers, and--occasionally--by the general public. Research-generated information competes in the market-place of educational ideas and beliefs with many other forms of information and argument to influence (a) future research and interpretations of research, (b) practitioners' understandings, beliefs, and actions, (c) educational policies, assessments, and judgments, and, usually through one of these, (d) instructional practice.

One suggestion put forward several times at the seminar was that research might more effectively influence practice by affecting educational assessment. (It is unfair and inaccurate to suggest that assessment in languaeg has not been informed by research, but for various reasons present assessment instruments and procedures seem to be inconsistent with present reseach-generated views on the nature of language and language learning, thus creating contradictory messages for practice.) My point here is that assessment may be an especially apt link between process and development research and instructional research and practice. As we improve our understanding of

linguistic and cognitive processes, and the relationships between them, we should also improve our understanding of what to look at and what to look for when we try to assess such constructs as "communicative competence," "language performance and use," and "achievement," whether such asessment is for purpose of research or accountability.

Perhaps more than others, researchers are required to define terms such as "reading," "writing," "language development," "literacy," and "communicative competence" in theoretically sound and empirically justifiable ways, and to find ways to operationalize those definitions. That is, we must more consciously and conscientisusly determine what arguments and evidence constitute good reasons for our beliefs about the state of someone's linguistic performance or competence, and how it is influenced. It follows, I think that researchers, in collaboration with theorists, need to make those definitions and reasons more explicitly available so that they receive appropriate attention from test- and policy-makers who must also define and assess such constructs.

It is perhaps inevitable that the evaluations necessary for accountability purposes (to use Peter Johnston's term) will differ in some ways from the evaluations needed by teachers. (I believe Peter has overlooked society's legitimate need to sort and label, which may at times compete with its use of evaluation to promote excellence.) But is is essential, as Johnston points out, that different evaluations of a construct operate with a consistent view of what that construct is.

DYKSTRA: Jane Hansen stressed the importance of turning over to students much of the responsibility for their own learning. She emphasized the importance of allowing students to choose what they wanted to read or

writing about and she spoke of process-oriented classrooms for language learning in which children are involved in whole language activities, in reading and writing and speaking and listening rather than working by themselves on skill sheets or grammar exercises. Fillion and Brause, moreover, emphasized in their paper how research concerning cognitive and linguistic development has shifted from the teacher to the learner and from learning as the retention of information or the performance of discrete skills to learning as an active, dynamic process.

This picture of process-oriented classrooms in which learners make important decisions, in which learning is an active dynamic process, in which children are involved in whole language activities, in which teachers are facilitators, observers, hypothesis generators, and fellow-learners was one that has been high in the consciousness of seminar participants. Yet how transportable or generalizable, however, is this classroom? To what extent will whole language learning, writing laboratories, and free choice reading supplant in elementary classrooms the language arts textbook, formal grammar instruction, and basal reading workbooks and skill sheets?

In my opinion it will be a "hard sell." The changes recommended as a result of pulling together the best of current research and theory will be much more difficult to implement than the recommendations twenty years ago of the first-grade studies to teach earlier more intensive phonics. I come to this conclusion for a variety of reasons.

Adopting a process-orientation as suggested by Hansen and others would constitute major changes in the manner in which many, perhaps, most, elementary teachers have carried out their instructional responsibility. Elementary teachers have been encouraged to look to published materials for guidance,

for example. In my judgment they have tended to place primary emphasis on the teacher as teacher rather than on the pupil as learner. They have come to value structure and sequence. In addition, recent implementation by school districts of some of the findings of school effectiveness and teacher effectiveness research in many cases has emphasized skill practice, time on task, direct instruction, mastery learning, and the like, which has led in certain situations at least to teachers being evaluated by an observer who checks off appropriate teacher behaviors on a research-approved check list. It is likely, then, that the staff development work going on in many school districts may lead teachers even further away from the student-centered process-oriented classroom.

If we expect classroom practice to follow more closely in the suggestions of Hansen and others, moreover, principals, curriculum supervisors, boards of education, parents and even teachers will need to be convinced that the recommended changes are appropriate or even wise given "conventional wisdom" and the current widespread criticism of schools for failing to teacher pupils to read, to handle adequately the mechnaics of writing, or to demonstrate command of standard English. Those responsible for making curriculum decisions will doubtless ask for evidence that what is being recommended in fact "works." In other words, those responsible for making curriculum decisions will rightfully ask, "Where is the evidence?" As I implied before, moreover, there is a fair amount of research evidence which may be viewed as in opposition to the student-centered process-oriented whole language classroom. Given the lack of comparative research demonstrating the effectiveness of process-centered teaching and learning, and given the somewhat contradictory classroom applications suggested by teacher effectiveness and classroom effectiveness

research, it is likely to be very difficult to make major changes in how reading and writing are taught and learned in classrooms. Even though many of the seminar participants are critical of the horse race model of research, it may be necessary to conduct such research with the hope and expectation of demonstrating to a skeptical audience the effectiveness of student-centered classrooms even as measured by conventional assessment instruments.

DYKSTRA: The major obstacle to the adoption of natural student-centered progressive methods of early reading and writing development may well be the nature of our assessment programs in schools. When policy makers ask for evidence that process centered classrooms are effective, they doubtless have in mind evidence as assessed by traditonal measures--product-oriented nor-referenced standardized tests, criterion-referenced skills management systems, or the myriad of minimal competency tests in vogue today which tend to focus on simple products of teaching and learning. There certainly is no question that testing drives curriculum. Even though curriculum development usually starts with a statement of objectives, those objectives tend to have far less influence on what goes on in classrooms than does the assessment program of the school, the school district, or the state. It is interesting in that regard to note the recent recommendation by a summit conference of the fifty chief state school officers to rank all fifty states according to student performance on a national test of reading, math, science, English, and social studies. We can predict that if this testing program comes about the assessment measures will by typical product-oriented tests that bear little or no relationship to classroom programs that emphasize whole language learning, student choice, and process orientation. Once more tests will likely drive instruction away from what was envisioned by seminar participants.

What can we do about testing? Peter Johnston argues persuasively for a radical de-emphasis of formal standardized product-oriented assessment in our schools to be replaced in a large measure by informal teacher observations of the processes children use in reading and writing. Does the child choose to read or write given the opportunity to do so? Does the child use prediction in his/his reading, does he or she monitor and verify the accuracy of those predictions? Does the child demonstrate understanding of reading and writing processes? Is the child making progress in language learning? Has the child learned the importance of self-evaluation? If Johnston were to have his way, educational outcomes would be assessed more as processes than as products of learning. We are not likely to change testing programs overnights, however. I recall the comment by Alan Purves that we are likely to accomplish change more readily by infiltration rather than confrontation. He gave as an example that currently one to two million students are asked to write compositions as a means of evaluating writing competence rather than merely being administered a standardized multiple choice gramar test.

Perhaps, then, we need to infiltrate--to lobby for including more holistic assessments of reading and writing and to decrease drastically the number of subscale tests of reading and writing. At the same time we can assist and encourage teachers to be better listeners and observers and to better document the progress children are making in meaningful language learning.

Reading and Writing

PURVES: Many of the attempts to relate reading and writing have sought to do so by citing their parallels as processes. They have also assumed that there is a continuity between writing and reader.

Literary theory recently has offered most cogent arguments that there is no continuity between writer and reader. The text is not a communicative instrument. It is as Guar states a means of information storage and retrieval. Second, the discussion of the activities of writing and reading have focussed entirely on the content of what is written; there has been little if any attention to structure, voice, and style. Even the text linguists have avoided the major cohesive tie--collocation--in part, I think because Halliday did not discuss it because he found it too slippery. And we are beginning to realize that cohesion has little to do with coherence. Some of the recent studies of the influence of writing on reading that I have heard about are based on the premise that all one derives from reading is content. Literary theorists and anthropologists suggest, however, that literacy produces a set of text models that may have greater effect than does the content of what is read. Reading and writing share the fact that both depend upon knowledge, more heavily than current researchers at the seminar suggest (except for Dianne Schallert); knowledge of content, but equally knowledge of form and style (or genre) and knowledge of situational relevance. These last two seem not to be the concern of much current research in our field; and until they so become the research will not be wholly relevant to instruction.

A New Design for Research

PURVES: The seminar's final discussion focussed in part on a new form of evaluation, that in which the researcher seeks to change something in the classroom and document the results of that change, more in the manner of an evangelist than that of an evaluator. In this form of study the researcher is a participant and advocate of the change; not a

participant observer. The research seems to be tied to a new myth of English teaching that has evolved. As one of the wise men of education, C. E. Beeby, said at a conference I attended, education works by myths, and myths probably have a useful life in education of about twenty years. Such was true of the myth of a liberal education and the melting pot, of equality of educational opportunity, and may well be true of today's nihilistic myth of process, individual self awareness and individual empowerment, which is where I see some of the current thinking about writing. Bowers suggests that this myth emerged in the 1960's with the work of Ilych and particularly Freire but has its roots in liberalizm and Nietzsche's critique of literalism. And it is at odds with the findings of cognitive psychology that knowledge is a paramount aspect of language learning particularly reading and writing.

The myth has affected educational research, for it calls for a new design, one not covered in Campbell and Stanley or the other standard textbooks. The new research disapproves of quantification because quantification appears to reject the individual, the special case of student A or classroom X. It tends also to reject the ethnographic study for that kind of study assumes a cultural embedding of the individual. What has emerged is the case study, perhaps derived from psychoanalysis, but modified in that the case is seen not pathologically but often admiringly as an exemplum. One may also see the research as having roots in dialectical materialism, as has the ideology that has engendered the research. The assumption of the ideology and the research is that current educational practice is wrong because it represents a form of cultural domination from which students and teachers should be freed--whether the domination be the SAT, the five-paragraph theme, the basal reading series, the emphasis on grammar and usage, or new criticism,

all of which are branded with the epithet "product". Counter to it is the liberating "process", which is seen in revolutionary terms because it provides teachers and students with the illusion of freedom. The research that emerges is often a history of revolution into a new orthodoxy. The research is no longer neutral, nor is it comparative, nor, in many cases, does it deal with results. It is a research with which many educational planners and policy-makers have difficulty.

I think the tone of my description suggests that, as a researcher, I worry about this sort of research. Indeed I do; I find it an abyss. I think I feel threatened because of my concern with literature and with the study and teaching of language as a force for social cohesion, which is how it is seen in many countries. Now all that I know and cherish is threatened. I think Donald Hirsch sees that threat, which is why he calls for cultural literacy, an idea not discussed at the seminar, and one which may become the new myth. I think some of those at the seminar also saw the prevailing myth of individual process and the concomitant advocacy evaluation which is not research as we have known it as a threat. I for one, am worried and I am unsure as to how the myth of individual empowerment will work itself out in the history of language teaching and education, and I am unsure what new myth will come and with it what new research.

If I have voiced concerns, it is not because the seminar was a failure. Certainly the papers indicate that a great deal has been learned about writing and each is provocative. But the research they report sets forth a position that writing depends upon knowledge and much of the vogue of practice denigrates knowledge. Writing instruction as popularly conceived in the profession has, I think, tended to ignore the findings of research and followed a myth which research cannot really prove or disprove.